

The Weekly Magazine of Metalworking

VOL. 128 NO. 3

JANUARY 15, 1951

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Editorial and Business Staff—Page 10. Advertising Index—Page 154. Editorial index available semiannually. STEEL also is indexed by Engineering Index Inc., 29 West 39th St., New York 18.

Next Week...Conversion—When and How...Spun Neutral
Shapes Facilitate Drop Hammer Forging...Rotary Printer
Speeds Sheet and Strip Stenciling...How To Apply Cutting
Fluids to Machining Operations

Pu_lished every Monday by the Penton Publishing Company, Penton Building, Cleveland 13, Ohio. Subscription in the United States and possessions, Canada, Mexico, Cuba, Central and South America, one year \$10; two years \$15; all other countries, one year \$18. Single copies (current issues) 35 cents. Metalworking Yearbook issue \$2.00. Entered as second class matter at the postoffice in Cleveland, under the Act of March 3, 1879. Copyright 1951 by Penton Publishing Co.

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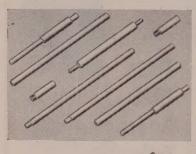
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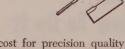
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Behind the Scenes ...

Steel Buyers' Guide

If you had been upstairs in the editorial precincts last week you would have heard a steady drone emanating from Associate Editor Vance Bell's office. He and Bill Wolfe, a new assistant editor formerly on the staff of an Ohio newspaper, were doing a special proofreading job on the monumental steel buyers' guide that appears this week beginning on page 37.

One would read cards Vance had compiled over the past 10 months in working on the task while the other would check the notations translated into type on the page-proof. It took them nearly six days to check the 44 pages, which bring you a unique guide showing what steel sizes and shapes are produced where and by whom in the U. S.

Extra copies are available for 50 cents each from Readers' Service Department, STEEL, Penton Bldg., Cleveland 13, O. Quotations on quantity orders are given on request.

Chinese Hog Bristles

We're relieved to report that action to assure supplies of imported hog bristles to meet immediate defense and essential civilian needs has been taken by the alert National Production Authority.

A little research reveals that all hog bristles used in this country are imported, with 90 per cent coming from China. Now, of course, imports of Chinese hog bristles have been virtually cut off. Important uses of those bristles are in the production of paint and varnish brushes and dabbing brushes used to manufacture wool clothing.

Thus endeth today's lesson.

Accent on Youth

Tommy Pearce, aged 10, 2409 S. Hayes St., Arlington, Va., wrote this letter to Rr. Adm. A. G. Noble, chief of the Navy's Bureau of Ordnance:

"I think that when you find a way of setting off a bomb by inducing electricity into it, that you should make an atomic torpedo. You could use it in attacking enemy shore batteries. I hope you can use this plan."

A postscript to the letter suggests "you could attack the Communist troops through Japan." Tommy included in his letter a drawing of his torpedo and a strategical sketch showing the 38th parallel in Korea

and the line of movement from "wherever you start" to "wherever you attack."

"You could send a small convoy of ships or submarines from America or Japan and make an attack with the atomic torpedo," Tommy pencils on his strategical sketch.

The whole idea was found "very interesting" by the Department of Defense. We found it appalling. It conjures up visions of little ten-year-olds studying logistics instead of spelling in school. We see primers for eight-year-olds explaining the intricacies of the Browning Automatic Rifle; textbooks for teen-agers on the development of antitank weapons.

Happy New Year

Overheard mutterings of a stout gentleman at 11:52 p.m., Dec. 31, 1950: "Hmmmm. Nine more minutes and the new annual income tax rates go into effect."

Puzzle Corner

Four colleges took part in an elimination football tournament—Trinity, Tufts, Temple and Tulane. The winners of the first two games met in the third and final contest to decide the championship. The colors of the teams were brown, red, blue and purple, and the competing captains were Albie, Barry, Bill and Ben, although not necessarily in the order given.

In the final game Albie's team made its only score by a touchdown on the first play but missed the point after touchdown.

The red team lost to Tufts in the first game.

Ben's team defeated Tulane 12 to 0.

The captain of the purple team saved his team from being scoreless in the third game by a 40-yard field goal

Ben's team did not play Trinity.

Harry's team lost to the undefeated team.

Albie did not see his former friend, the captain of the brown team.

Who defeated whom in the playoff and by what score? Who was the captain of each team. What was each team's color?

Shrollu

The Metalworking Outlook

Wage, Price Formula by March

No across-the-board wage and price controls are likely until March. Auto men are saying privately that they got the rawest kind of treatment from the government when curbs were put on their prices, but not on steel. Talk of rolling back steel quotations to Dec. 1 levels is disappearing, but don't rule out the possibility of the roll-back date being set at sometime in January. The federal wholesale price index for the week ended Jan. 2 hit 176.7, an all-time high.

Labor Influence Recovering

Labor pressure mounts for a lenient wage control formula. Despite the November election results, labor influence in Washington is still powerful, promises to get stronger as union membership gains. New defense plants will be easy to organize, and many of the workers will be recruited from factories and other sources now unorganized. Some labor leaders favor a wage formula hooked to the cost-of-living index, but opposition to that exists, notably from railroad chieftains.

Search for Substitutes

Get busy on finding substitutes now for steel and other scarce materials. The government will continue to spoon-feed the bad news about mounting materials requirements for defense and essential civilian production. We now have scarcely two weeks' supply of aluminum; all other nonferrous metals are tight. Auto and appliance makers will be paring the trim and gadgets off their models soon to save on materials.

Steel Capacity Climbs

A steelmaking capacity of at least 115 million ingot tons annually by the end of 1952—that's the latest prediction based on more steel expansion plans (p. 35). Our potential now is between 103 and 104 million tons. Rumor has it that still a third steel firm will build a plant along the Delaware river. U. S. Steel and National Steel already have definite plans for the area. New England will get a new steel plant, too. NSRB will permit fast tax writeoff on the facilities' cost.

Comeback in Coal?

Coal will make a big comeback in the years ahead because it constitutes nearly 90 per cent of the potentially recoverable fuel reserves of the U. S. That factor alone will outweigh coal's disadvantages because availability will become increasingly important in a garrison state. Coal reserves total 1.2 trillion tons; 50 per cent of that is bituminous, 19 per cent subbituminous, 30 per cent lignite and 1 per cent anthracite. Watch for new plans for coal gasification and underground burning methods.

Boost for Titanium

Titanium production will be expanded mightily because of a Defense Department order just placed for substantial quantities of the metal. A proportion of the cost will be paid in advance to permit supplies of titanium sponge to expand facilities. Ordnance sees many applications for the metal to replace steel in field equipment, even including small arms where titanium's light weight will enhance portability. Form in which the metal will be supplied, as well as price, will be determined later, as shipment allotments are issued.

Revival in Shipbuilding

Look for a major growth in shipbuilding this year. Expansion won't reach anything like World War II heights, but it will still be large. Maritime Administration will open bids Jan. 31 on 12,500-ton dry-cargo ships with a speed of 20 knots. No more than five ships will be awarded to any one yard; the \$350 million congressional appropriation will permit contracts for only about 50 vessels. Standby government shipyards may be reopened soon, particularly in the San Francisco bay area.

New Look at St. Lawrence Plan

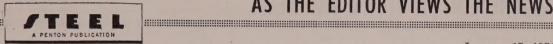
Watch for new developments in the old St. Lawrence waterway and power proposal. Steel and ore companies involved in the Labrador ore development project are working for government action. They at last have the Federal Power Commission on their side. FPC, in turning down a New York State project to develop the power portion of the program, says it is recommending that Congress develop a program for both navigation and power on the St. Lawrence river.

Signs of the Times

You may soon have trouble getting shaving cream in collapsible tubes made from tin . . . Look for a sharp increase in the need for enamelware because of stainless steel and aluminum shortages . . . An economical method of refining domestic manganese ore*can be developed, says American Chemical Society . . . U. S. Steel Co. and other U. S. Steel subsidiaries are getting set to move into their new Pittsburgh building.

Goings-on in Industry

Civilian production cutbacks are increasing (p. 33) . . . Heavy construction awards hit an alltime high in December (p. 34) . . . Canadians have shipped a steel ingot hot for 200 miles in an experiment that may help save time and money for users of ingots and billets who have no soaking pit facilities (p. 35) . . . The U. S. issues more controls (p. 36) . . . Industry will spend \$2.19 billion on new plant and equipment in 1951, says SEC and Commerce (p. 85) . . . A Senate committee report flays the Federal Trade Commission as adding to business confusion and uncertainty (p. 82) . . . War gasoline may mean auto engine design changes (p. 87) . . . We're traveling on an economic path strikingly similar to that followed in 1941 (p. 91).



January 15, 1951

"Words and Deeds"

In his "state of the union" message President Truman acknowledged the need for debate. He said: "I ask the Congress for unity. . . . I do not ask for an end to debate. Only by debate can we arrive at decisions which are wise and which reflect the desires of the American people. . . . Let us debate the issue, but let every man among us weigh his words and deeds. . . ."

This is sound advice and if the President himself would follow it and set an example for others, progress toward unity would be speeded appreciably. For instance, consider what would happen if the President would "weigh his words and deeds" on one important aspect of the present crisis-government spending.

During the past month, Mr. Truman has referred several times to the necessity of reducing non-essential federal spending. While giving lip service to this desirable objective, he has manifested no enthusiasm for it.

For instance, Senator Harry F. Byrd sent Mr. Truman a letter urging him to lead a movement for economy in government expenditures. He cited chapter and verse as to how non-essential domestic spending could be reduced \$7.6 billion in the next fiscal year. He offered to work with the President toward this goal. Mr. Truman accepted the offer and then proved the insincerity of his acceptance by uttering silly statements that Senator Byrd doesn't know anything about budgets and that "expenditures for the general government have never been excessive or extravagant."

This consistent ridiculing of economy is not the act of a man who really welcomes debate and who counsels debaters to weigh their "words and deeds." This is lamentable, because the President, in this hour of crisis, must embrace economy fervently in order to win unity. His pay-as-you-go policy on taxes is sound, but it cannot be pursued unless non-essential spending is cut to the bone. He probably thinks the tax burden can be shouldered chiefly by corporations and rich individuals. Already it is assuming proportions which will impose heavy drains upon the pocketbooks of people in the lower income brackets.

Mr. Truman asked Congress for unity. How can Congress or the people unite under a leader who sneers at economy?

INFINITE VARIETY: Most steel buyers have a fairly good idea of the companies which sell finished steel products such as sheets, strip, plates, bars, shapes, wire, etc., but how many know accurately the mill locations from which a product of specific dimensions is available! For instance, assume that you are seeking a supplier of sheared hot-rolled plates 11/4 x 66 x 720 inches. There are three suppliers, located in Munhall and Coatesville, Pa., and in Gary, Ind. Or perhaps you wish to know where to buy bobby pin wire. There are 12 suppliers-four in Worcester, Mass.; two in Buffalo; and one

each in Alton, Ill.; Cleveland; Fostoria, O.; Newark and Roebling, N. J.; and Struthers, O.

Information of this type, with code numbers by which the names of suppliers can be identified, is presented for the first time in a 44-page "Guide for Steel Buyers" in this issue. It represents a prodigious amount of detailed work on the part of the editors plus 100 per cent cooperation on the part of steel suppliers.

One cannot scan this impressive array of products without realizing that here in the United States steel users have an infinitely greater variety of grades and sizes from which to choose

(OVER)

than is available in any other country in the world. This is largely a result of our system of intense competition. When a manufacturer develops a product which requires steel in volume in a size or form not presently available, suppliers vie to satisfy his needs. —pp. 37, 80

SIMPLE BUT EFFECTIVE: Sometimes an absurdly simple idea can save a lot of money. A case in point is found in the Kankakee, Ill., plant of A. O. Smith Corp. where a simple attachment to a lift truck enables six men to move more crates of water heaters than 22 men could handle by former methods.

The attachment consists of 12 tilting fingers mounted on a horizontal shaft above a vertical apron on the front of the lift truck. When the apron meets a crate, some of the fingers are tilted back by the slats of the crate but others protrude between the slats, engaging a horizontal cleat on the crate and lifting it. In addition to the substantial saving in manpower, this clever stunt eliminates the use of pallets, reduces damage to crates and lowers lift truck maintenance costs.

—p. 105

WARFARE BY MACHINE: Seven thousand members of the Society of Automotive Engineers, assembled in annual convention in Detroit last week, listened to a program that was heavily weighted by discussion of the warproductive potentials of the automobile and aircraft industries. Emphasis was placed upon an idealistic concept of warfare wherein men make machines and to a large degree the machines do the fighting. A picture was painted of maximum manpower in industrial plants which turn out fighting machines that will insure minimum waste of manpower on combat duty.

This probably is the pattern for major wars of the future, but it has been applicable only to a limited extent in what is going on in Korea. There machines undoubtedly have spared soldiers' lives, but the mechanical equipment has not been potent enough to relieve the infantryman from the punishment of old-style hand-to-hand fighting. He would welcome the push-button warfare the engineers envision. —pp. 35, 87

VERMICULITE DOES IT: Here is an experiment which may have great possibilities for a few companies. Dominion Iron & Steel Ltd., Sidney, Nova Scotia, shipped a 30,000-pound ingot 200 miles to Trenton, where the Trenton Steel Works Ltd. went to work on it without reheating. It left Sidney in the afternoon with a temperature of 1770 degrees and retained a temperature of 1575 degrees on arrival at Trenton the next morning.

At Sidney the ingot was allowed to solidify in a mold, was stripped and placed in an iron box insulated with premolded vermiculite. The remaining space was filled with loose vermiculite and a steel lid was placed on the box. Vermiculite under heat forms granules containing dead air cells having great insulating value. Its melting point is 2500 degrees, making it fire-proof.

Perhaps there is something in this idea for forging companies and other users of ingots and billets which do not have soaking pit facilities.

-р. 35

COMMITTEE RAPS FTC: A recent report of the Senate Committee on Interstate & Foreign Commerce criticizes the Federal Trade Commission in terms that will be music to the ears of industrialists who have long suffered from the confusion that exists in regard to the

meaning of antitrust legislation.

The report points out that in establishing FTC in 1914, President Wilson expected that it would help to give the business of the country "more explicit legislative definition of the policy and meaning of the existing antitrust law. Nothing hampers business like uncertainty..." The senate report charges that FTC, instead of clearing away confusion, has added to it. The report also points out that when President Truman vetoed the freight absorption bill, he voiced approval of the right to absorb freight and declared clarification of this right could be expected by FTC.

Inasmuch as clarification by FTC has not materialized, the report suggests that Congress again tackle the problem.

—p. 82

E. L. Shaner



Civilian Output Cutbacks Snowball

But even if the nonessential volume is cut 50 per cent—unlikely unless World War III begins—1951 production will still exceed the 1939 level

HE CUTBACKS are coming in civiln production. Auto makers, home opliance manufacturers and housg contractors are beginning to feel e pinch as steel, nonferrous metals id component part supplies grow arcer.

End-use limitations on steel are beg considered in Washington. Limitions on the consumption of copper more than 300 civilian products come effective Mar. 1. Restrictions aluminum are already in effect. ven if a 50 per cent cutback occurs all nonessential civilian output in le coming year-the gloomiest prosect-more will be produced in 1951 an in 1939. Although civilian cuticks in relation to the record 1950 itput undoubtedly will occur in the ext few months, nonessential producon may still match or even surpass 149 levels, at least in the first half of 351.

Bleaker and Bleaker—The secondalf outlook is bleaker. Military eel needs are climbing rapidly. Last eek estimates put them at 2 million ons for the first half. That estimate as been shoved upward again. Exect it to climb steadily in the third of fourth quarters.

Passenger car output in the first alf of 1951 may fall no more than 10,000 short of the 3.1 million units inned out in the like period of last ear, predicts Ward's Automotive eports. That would be a drop of ss than 5 per cent.

Still Good—Although production of ajor appliances in the first quarter in 1951 will be 15 per cent below that the fourth quarter of 1950 due to aterials restrictions, the rate will ill exceed that of the first quarter 1950 by at least 20 per cent. So tys P. J. Newcomb, sales manager the Electric Appliance Division Westinghouse Electric Corp. Most opliance makers are working on the base of the admiral color, which is the president of Admiral or the still president of the still president of Admiral or the still president of the still president of Admiral or the still president of the still president o

Builders in coming months will put o fewer new homes and get fewer ublic construction contracts. But onstruction of commercial and industrial plants will increase. Requirements of steel for construction will be much larger than had been expected—at least 2 million tons in 1951 for defense and essential civilian building. The bulk of that will go for the steel expansion program.

Pyramiding—Civilian output curtailments are scattered thus far. Here are some of the major ones:

Republic Steel Corp. has curtailed shipments as much as 25 per cent on some steel products to customers producing nonessential goods.

Chrysler, Studebaker and Packard are all curtailing auto production about 20 per cent because of materials shortages and restrictions. The same reasons dictated a cutback to a four-day week at Lincoln-Mercury's Robertson, Mo., plant. Chevrolet civilian cutbacks will be light in the first quarter and will gradually increase thereafter.

Westinghouse appliance output is down 15 per cent from December at Mansfield, O., and off 20 per cent at Springfield, Mass. Apex Mfg. Co. has laid off nearly 7 per cent of its force making appliances. GE and and Hoover are curtailing vacuum cleaner production. Ekco Products Co. is allocating its entire line of copper-bottomed cooking utensils. Crosley Division of Avco Mfg. Co. laid off nearly 1000 in December because of materials shortages and is forced to cut its appliance production. Frigidaire Division of GM has laid off 2.2 per cent of its Dayton, O., force.

See Cutback in Gas Appliances

Activity of manufacturers in the gas appliance industry, at a new high in all phases during 1950, faces a 20 to 30 per cent cutback in domestic production this year. That is according to present estimates on availability of metals and facilities, says Frederic O. Hess, president, Gas Appliance Manufacturers Association Inc.

Reviewing the industry's 1950 success, Mr. Hess cited figures on domestic gas ranges, where unit shipments passed the 3-million mark for the first time compared to the 2,069,000 of 1949; automatic gas water heaters, where shipments reached 2.3 million for an increase of 56.9 per cent over the 1,466,000 in 1949; and shipments of furnace units in all categories, which reached 3,381,000 compared to the 1949 yearly total of 2,462,000.

The industry bases its hopes for continued effective production on the



TROUBLE FOR MIG: Latest version of the 650-mile-per-hour F-86A Sabre, now racking up victories over Red Mig-15 jets, is the F-86E Sabre jet fighter rolling off assembly lines at the Inglewood, Calif., plant of North American Aviation Inc.

The F-86E is a "super controlled" job that means more trouble for the Reds



OUT OF THE FROZEN NORTH: A workman inserts a steam jet into the side of a railroad car to thaw out the first shipment of frozen ore from the Mesabi range in northern Minnesota. U.S. Steel's Chicago district mills got 50 carloads of the ore—the first time it has been shipped by rail in the winter. Steam passes through the perforated pipe which is inserted in holes in ore cars

fact that it enters this conversion year with more than double the facilities, manpower and productive capacity commanded in 1941.

Job Seekers Seek Defense Work

Already employment offices of automakers are under seige from people seeking work in defense plants. Many of these are coming into the city from West Virginia and Kentucky, most of them being draft-age men. Employment offices at this moment, however, are doing more dismissing than hiring as automobile production suffers under the restraints of materials shortages.

West Scours Labor Markets

Women, oldsters, and handicapped persons will be needed to man production lines of western war plants. So says Glenn E. Brockway, regional director of the California Bureau of Employment Security.

He is chairman of a newly-formed labor-management committee organized to mobilize more defense workers for war plants in California, Nevada, and Arizona. He said 300,000 defense workers will be needed by war plants in the three states by next summer.

U.S. Cuts Paperwork

A combined purchase order-invoicevoucher designed to minimize paperwork on small purchases, speed payment and make it easier for small merchants and others to do business with the government can now be used by all federal agencies.

It's called Standard Form 44 and will be particularly for small purchases of less than \$10 but can be used for orders up to \$500. For General Services Administration and Department of Defense, Form 44 can be used for orders up to \$1000.

Awards At Record High

Heavy construction contract awards for December reached \$1,424,619,000, for the largest monthly total on record, according to the *Engineering News-Record*. This figure boosts the final yearly total to another all-time high of \$12,351,706,000 and a 51 per cent increase over the 1949 volume.

Yearly increase in physical construction, measured by ENR Construction Volume Index, stayed close behind, rising 46 per cent to a level of 503. This figure is reached on the basis of 1913 equalling 100.

Another record was established when the year's volume of private contracts climbed to \$6,670,476,000, an increase of 76 per cent over the 1949 total. A December high was set for awarding public contracts when \$1,075,977,000 was reached, pushing the total of the year's public works to \$5,681,131,000, or an increase of 32 per cent over 1949. Awards for construction of two atomic energy plants amounting to \$760 million was the major cause for the big jump in December volume.

Public building scored an all-time high monthly average in December at \$225 million a week and industrial work increased slightly over November, scoring \$37.4 million against the \$33.3 million of the previous month. All other classes dropped in average. Waterworks were scored at \$2.5 million; sewerage at \$4.6 million; earthwork, drainage and waterways at \$3.1 million; privately financed mass housing at \$33 million.

Non-Ferrous Founders Elect

New president of Non-Ferrous Founders Society is J. D. Zaiser, Ampco Metal Co. Inc., Milwaukee. He succeeds Walter M. Clark of D. W. Clark & Co., Boston. The society is located at 127 N. Dearborn St., Chicago 2, Ill.

Toerge: New Engineering Editor

New engineering editor of STEEL is Walter F. Toerge. He succeeds



WALTER F. TOERGE

Jay DeEulis who was recalled to active duty by the Navy.

Mr. Toerge was graduated from the University of Pittsburgh in 1938, later studied metallurgy at Brown University and Pennsylvania State College. He worked for Jones & Laughlin Steel Corp. for four years in the general superintendent's office and the hot-rolled sales department for four years before joining the Army Ordnance Corps. After being discharged with the rank of captain in 1946, he joined STEEL's editorial staff as associate editor.

Conference on Personnel Trends

Personnel managers and general executives of Ohio industries attending the tenth Northern Ohio Personnel and Executive Conference in Cleveland, Jan. 19, will receive in-

formation on latest trends and impending developments in the field of personnel management and labor relations. To be held at Hotel Carter, the conference's discussion leaders will cover recruiting, training and retaining work forces.

Ford Engineer Heads SAE

The Society of Automotive Engineers is being headed this year by Dale Roeder, executive engineer, commercial vehicles, Ford Motor Co. His election occurred last week at the society's annual meeting in Detroit after the society's council took special action to fill the void created by the death last November of President-Elect James E. Hale, engineer for Goodyear Tire & Rubber Co.

Mr. Roeder has been associated with Ford since 1925. During World War II he had charge of all military wheeled and tracklaying vehicles produced by Ford for U. S. Army Ordnance. After the war, he was thief engineer of all commercial vehicles until his promotion to executive engineer in 1949.

Elected to fill Mr. Roeder's unexpired 1950-51 term as SAE councilor was L. Ray Buckendale, vice president of engineering, Timken-Detroit Axle Co.

B. B. Bachman, Autocar Co., was elected treasurer, and E. F. Armstrong, General Motors of Canada Ltd., W. E. Beall, Boeing Airplane Co., and R. F. Lybeck, Esso Standard Oil Co., were chosen as councilors for 1951-52.

Steel Raises Sights Again

Capacity will grow to 115 million tons by end of 1952. Four million added in 1950

WATCH for still more important steel capacity expansion announcements. About two million tons of capacity not yet revealed is projected by steel producers and will raise the ndustry potential to at least 115 million tons by the end of 1952.

That will mean a 15 million ton ncrease in three years. Well over 4 million tons of capacity was added n 1950, says the American Iron & Steel Institute, which is now compiling official capacity figures as of Jan. 1, 1951. The total is expected to be close to 104 million tons.

Still Another—Rumors of a third arge mill on the Delaware river are circulating among steelmakers. Late ast week none of the companies mentioned would admit they are contemplating such a plant. U. S. Steel and National Steel are going ahead

with plans for new integrated mills in that area.

New England To Get Steel Plant

A steel plant will be built in New England. National Security Resources Board has issued a certificate of necessity permitting facilities to be written off for tax purposes in five years.

New England Steel Development Corp. had earlier asked the government for authority to build a \$250 million plant at New London, Conn., with an annual capacity of 1 million tons. (see STEEL, Jan. 8, p. 29). A loan from Reconstruction Finance Corp. probably would be necessary to finance the construction.

Union Pacific Orders Locomotive

Union Pacific Railroad has ordered 10 gas turbine electric locomotives from General Electric Co.

The units will be similar to a 4500-horsepower locomotive that has been undergoing test on regular freight runs for the last year and a half. Delivery is expected to begin in the latter part of 1951. The contract is the first commercial order for this newest form of rail motive power.

The gas turbine power plant is similar in principle to the power plant in jet planes, except that there is no jet effect as in a plane. In the locomotive, the turbine is connected through reduction gears to electric generators.

Canadians Ship Steel Ingot Hot for 200 Miles

CANADIAN producers have shipped a steel ingot hot for 200 miles in an experiment that may help save time and money for forging companies and other users of ingot and billets who have no soaking pit facilities.

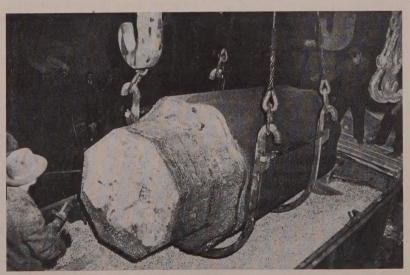
Dominion Iron & Steel Ltd., Sydney, Nova Scotia, shipped by rail one afternoon a 30,000-pound ingot at a temperature of 1770 degrees fahrenheit. When the Trenton, Nova Scotia, plant of Trenton Steel Works Ltd. went to work on it the next morning, it still retained a temperature of 1575 degrees.

Wrapped Up—The ingot was insulated with vermiculite, a mineral of the mica family mined by Zonolite Co., Chicago. Special arrangements were made for the trip by Canadian National Railways, which

carried the red-hot cargo all the way.

At the Dominion plant the ingot was allowed to solidify in a mold, was stripped and placed in a cast in a cast iron box insulated with premolded vermiculite. The remaining space was then filled with loose vermiculite and a steel lid placed on the box. That was then fastened and braced to the railway car floor.

Fireproof—When treated with heat, vermiculite ore pops open, forming gold-colored granules containing millions of dead air cells. Those numberless cells permit only the slowest passage of heat, the golden surfaces reflect the heat much as a mirror reflects light. Vermiculite has a melting point of 2500 degrees fahrenheit, making it absolutely fireproof.



DOMINION IRON & STEEL LTD.'s 30,000-POUND INGOT . . . a 1575-degree temperature the morning after

CHECKLIST ON CONTROLS

Materials Orders

SCRAP—M-20 limits iron and steel scrap inventories held by dealers and brokers, automobile wreckers and producers of scrap. Based on a 60-day period, scrap inventories are to be held to a practical working minimum, or to the level of the preceding 60 days, whichever is less. Companies covered by the order are required to retain for two years records of receipts, deliveries inventories and use of scrap. NPA Order M-20. Effective Jan. 4, 1951.

TIN—Amendment 2 to M-8 permits smelters and refiners of secondary tin to use tin scrap and other secondary tin-

A DIGEST of previous NPA and ESA regulations appears in STEEL, Jan. 8, p. 30. STEEL will carry each week a digest of all regulations put into effect by the various government controls agencies. For complete copies of NPA orders, write to U.S. Commerce Department, Division of Printing Services, attention E. E. Vivian, Room 6225, Commerce Bldg., Washington 25. For ESA orders, write J. L. Miller, Economic Stabilization Agency, Room H367, Temp. E. Bldg., Washington 25.

bearing materials that result from normal processes in the production of pig tin, alloys and chemicals. Secondary tin is defined as any alloy produced from scrap that contains less than 95 per cent but not less than 1.5 per cent by weight of the element tin. Amendment 2 to M-8. Effective Jan. 9, 1951.

Priorities

Delegation 6 authorizes the Civil Aeronautics Administration to issue DO ratings to obtain materials and equipment for maintenance and expansion of the civil air transport and the Federal Airways System. NPA Delegation 6, Effective Jan. 4, 1951.

ACCESSORIES—Amendment 3 to NPA Regulation 2 authorizes use of DO Ratings to procure accessories, such as jigs, dies, tools and fixtures, where necessary to production of rated orders on schedule. Amendment 3 to NPA Regulation 2.

NPA Sets Up Conversion Bureau

The National Production Authority has established a Facilities & Construction Bureau designed to aid defense construction and its related industrial expansion. Frank R. Creedon was named administrator.

Mr. Creedon, who previously has been director of the NPA Facilities Clearance Staff, set up five divisions within the new bureau to cover industrial expansion, tax amortization, loans, building materials and construction controls.

Canada Controls Metals

C. D. Howe, Canadian minister of trade and commerce, has created a nonferrous metal division to be headed by Frank V. C. Hewett.

The Canadian step follows complaints by U. S. officials at the dominion's reluctance to follow the U. S. system of imposing controls.

Watch Out for Radiations

Are you manufacturing or using equipment that generates excessive electromagnetic radiations — motors, switches, welding sets and a host of other items?

If so, your attention to this condition will be brought in forceful terms if and when Congress legislates a bill submitted by the Department of Defense. It authorizes the President "to control all types of electromagnetic radiations that might be used to guide an enemy plane or missile in an attack on the United States." The control would extend to anything "capable of emitting electromagnetic radiations between ten thousandths

and one hundred thousand (0.010-100,000) megacycles per second."

More Metals Consultants

Metals consultants employed on the pricing staff of the Economic Stabilization Agency, Washington, are: Sam Ewing, Youngstown Steel & Alloy Co.; William F. Sterling, American Steel & Wire Co., Cleveland; Hiram Winternitz, retired president, Charles Dreifuss & Co., Philadelphia; Irwin Cornell, retired executive vice president, St. Joseph Lead Co., New York; Ed Metzer, formerly manager of the Superior plant of Wellman Bronze & Aluminum Co., Cleveland; Ivon Ulrey, College of Commerce, Ohio State University, Columbus, O. More consultants from the metals industry are to be added shortly. All can be reached on the ESA telephone, STerling 4200.

Why Higher Taxes Are Needed

Why all authorities in Washington agree more taxes are needed by the Federal government is indicated by the heavy appropriations made by the 81st Congress in 1950 and by the outlook for still larger appropriations in 1951, The 1950 record:

Urgent Deficiency	\$739,653,500
Omnibus bill:	
Agriculture	773,208,924
Army Civil Functions	
District of Columbia	
Foreign Aid	
Independent Offices	
Interior	
Labor-Federal Security	
Legislative	
Military Establishment	
State, Justice, Commerce,	
Judiciary	
Treasury-Post Office	
Deficiency	653,761,608
District of Columbia	118,049,256
Supplemental, 1951	17,099,902,285
Second Supplemental, 1951 .	19,841,412,938

This table includes only cash appropriations. ¹ The total of the Post Office appropriations is \$2,207,500,000 payable from postal revenues to the extent such funds become available and the remainder from the Treasury. Estimated revenue is \$1,681,000,000.

WHEN THE U. S. SUPREME COURT issued its famous Cement Case Decision in 1948 knocking out the multiple basing point system of quoting prices, the steel industry went over to mill pricing, thus making every production point a pricing point.

Market Editor Bill Rooney explained mill pricing and the way it would affect industry in a special 16-page report in the Sept. 27, 1948, issue of STEEL. And, in the same issue, STEEL introduced the new system for the first time by publishing prices quoted by individual steel companies at each point of production. Today, STEEL regularly publishes over 2300 quotations on steel, the nonferrous metals and related products.

STEED's price section (starting on page 124 this week) actually comprises a directory telling you who makes what products—and where. But, many of you also have been asking: "Who makes what sizes?" So, in the "Guide for Steel Buyers" on the following 44 pages you now will find the answers to literally thousands

of questions relating to sizes of carbon and silicon steel products.

Associate Editor Vance Bell and Bill Kellogg of our art department have been working on the Guide for many months with the able assistance of STEEL's field editors. For the steel industry, too, it has been a big job in assembling the necessary information—in many cases requiring policy decisions.

cases requiring policy decisions.

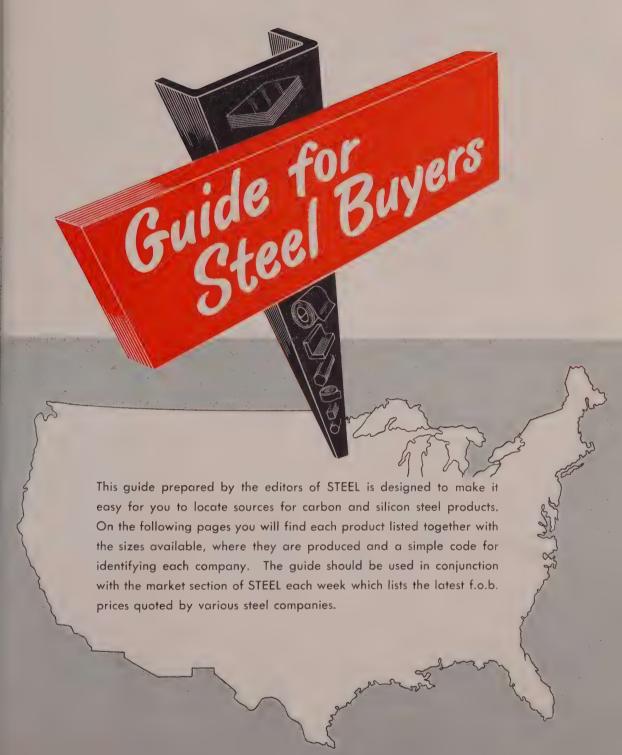
You will find it easy to determine the plant locations and names of producers of each size of product. Other uses for the Guide will be suggested also, as in the case of the executive who says his company will use the data in locating new plants.

Reprints of the Guide are available from STEEL's Readers Service Department, 1213 West 3rd Street, Cleveland 13, at these prices: one to nine copies, 50 cents each; ten to 24, 40 cents; 25 to 49, 35 cents 50 or more, 30 cents.

Irwin H. Such, Editor



January 15, 1951



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How To Use the Guide

This guide shows the range of sizes of carbon and silicon steel products produced by various U. S. steel mills. Check on the following pages for the type and size product you need and then find the names of the producers by referring to the code on this page. Base prices of the products will be found in the market section of STEEL each week.

SHEETS—Widths given for hot-rolled and cold-rolled sheets are maximums rolled at the various mills. Hot-rolled sheets, as customarily defined, are over 12 inches in width and thinner than 0.23-inch (or No. 4 gage.) Cold-rolled sheets, as customarily defined, are over 12 inches in width but not over 32 inches when thickness is 0.0142-inch (No. 28

gage) and heavier. When cold-rolled sheets are 0.0141-inch and thinner they can be over 32 inches in width.

STRIP—The guide shows minimum and maximum widths of strip produced by the various mills. For strip in coils, also check producers of coil sheets, who may be able to fill requirements by slitting.

PLATES—Plates ordinarily are over 6 inches in width when 0.23-inch and thicker. However, a product 0.18-inch and thicker and over 48 inches in width also is classified as plate.

BARS—Where range of thickness and widths are shown for flat bars it does not mean necessarily that the minimum thickness and maximum width can be obtained in one bar.

MECHANICAL TUBING—Minimum and maximum ODs are not necessarily available in the whole range of wall thicknesses listed. The minimum and maximum ODs are often dependent on wall thicknesses.

Key to Producing Companies

Index to Products

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Dankson I.	ı
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Cut longths 45	

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(Carbon Steel)	age
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(Electrical or Silicon Steel))
Armature Grade	
Coils	75 75
Dynamo Grade	/5
Coils	76
Coils	75
Electrical Grade	~-
Coils	75 75
Field Grade	/3
Coils	75
Cut lengths	75
Motor Grade	75
Coils	75 75
Transformer Grade 52	, ,
Coils	76
Cut lengths	76
Transformer Grade 58 Coils	76
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Coils	76
Cut lengths	76
Coils	76
Cut lengths	76
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Coils	76 76
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Cut lengths 45 | Fine—Special Purpose ..., 80

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A	1 1/2
A1 Acme Steel Co.	M
A2 Agaloy Tubing Co.	M
A3 Alan Wood Steel Co	M
A3 Alan Wood Steel Co. A4 Allegheny Ludlum Steel Corp. A7 American Steel & Wire Co.	I IV
A7 American Steel & Wire Co.	M
A9 Angell Nail & Chaplet Co.	
A9 Angell Nail & Chaplet Co. A10 Armco Steel Corp.	N
All Atlantic Steel Co	N
A11 Atlantic Steel Co. A14 Athenia Steel Division,	N
National-Standard Co.	1
	N
B	N
B2 Bethlehem Steel Co.	N
B3 Bethlehem Pacific Coast Steel	N
Corp.	l
B4 Blair Strip Steel Co. B5 Bliss & Laughlin Inc.	N
Bo Briss & Laughin Inc.	1
B5 Bliss & Laughlin Inc. B6 Boiardi Steel Corp. B9 Brainard Steel Co.	0
B12 Buffalo Steel Co.	0
B13 Bundy Tubing Co.	
B14 A. M. Byers Co.	n
	P
C	P
C1 California Cold Rolled Steel	P
Corp.	P
C5 Central Iron & Steel Div.,	P
Barium Steel Corp.	P
C6 Chicago Steel & Wire Co.	P
C6 Chicago Steel & Wire Co. C8 Cold Metal Products Co.	P
C10 Colorado Fuel & Iron Corp.	P
C11 Columbia Steel Co.	
C12 Columbia Steel & Shafting Co.	l _
C16 Continental Steel Corp.	R
C17 Copperweld Steel Co. C19 Cumberland Steel Co.	R
C19 Cumberland Steel Co.	R
C20 Cuyahoga Steel & Wire Co.	R
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D5 Driscoll Wire Co.	SI
	SI
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E5 Elliott Bros. Steel Co.	S1
E6 Empire Steel Corp.	S2
F	S2
F3 Fitzsimons Steel Co.	
F3 Fitzsimons Steel Co. F4 Follansbee Steel Corp.	S2
F7 Ft Howard Steel & Wire	
Div., Research Parts & En-	T4
gineering Corp.	T
G	T:
——————————————————————————————————————	T
G1 Geneva Steel Co. G3 Globe Steel Tubes Co.	TE
Go Giobe Steel Tubes Co.	Tri

Juuc	ing companies
Corp.	M5 Medart Co. M7 Michigan Seamless Tube Co. M8 Mid-States Steel & Wire Co. M12 Moltrup Steel Products Co. M13 Monarch Steel Co. Inc. M15 Mark & Co., Clayton
	N2 National Supply Co. N5 Nelsen Steel & Wire Co. N6 New England High Carbon Wire Co.
Steel	N9 Newport Steel Corp. N12 Niles Rolling Mill Co. N14 Northwest Steel Rolling Mills
	Inc. N15 Northwestern Steel & Wire Co.
	O2 Ohio Seamless Tube Co. O4 Oregon Steel Mills
	P1 Pacific States Steel Corp. P2 Pacific Tube Co. P5 Pilgrim Drawn Steel Div., Automotive Materials Corp.
Steel	Automotive Materials Corp. P7 Pittsburgh Steel Co. P8 Pittsburgh Tool Steel Wire Co.
).	P9 Pittsburgh Tube Co. P11 Pollak Steel Co. P13 Precision Drawn Steel Co.
orp.	R
Co,	R2 Republic Steel Corp.
orp.	R5 Roebling's Sons Co., John A. R6 Rome Strip Steel Co. Inc. R7 Rotary Electric Steel Co.
Div.,	S1 Seneca Wire & Mfg. Co. S2 Service Steel Co.
nry	S1 Seneca Wire & Mfg. Co. S2 Service Steel Co. S3 Sharon Steel Corp. S5 Sheffield Steel Corp. S14 Standard Tube Co. S15 Stanley Works S17 Superior Drawn Steel Co.
	SII Superior Diawn Steel Co.
	S19 Sweet's Steel Co. S21 Shenango Tube Co. S22 Summerill Tubing Co. Div., Columbia Steel & Shafting Co. S23 Superior Tube Co.
& En-	T4 Texas Steel Co. T5 Thomas Steel Co. T6 Thompson Wire Co. T7 Timken Roller Bearing Co. T8 Toledo Steel Tube Co.
	T8 Toledo Steel Tube Co. T12 Tube Reducing Corp.
	U5 United States Steel Co. V V4 Van Huffel Tube Co.
	W Wolless Parray Co
. Inc.	w1 Wallingford Steel Co. W2 Wallingford Steel Co. W3 Washburn Wire Co. W6 Weirton Steel Co. W8 Western Automatic Machine
Corp.	Screw Co.
lo. lo.	wy wheatiand rube Co. Wil Wheeling Steel Corp. Wil Wickwire Bros. Inc. Wil Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp. Wil Wilson Steel & Wire Co. Wil Wisconsin Steel Div.,
	W13 Wilson Steel & Wire Co. W14 Wisconsin Steel Div., International Harvester Co. W16 Worth Steel Co.
	W16 Worth Steel Co. W18 Wyckoff Steel Co. W19 Worcester Pressed Steel Co. W20 Worcester Wire Works Div., National-Standard Co.
	Y1 Youngstown Sheet & Tube Co.

A7 American Steel & Wire Co.	M15 Mark & Co., Clayton
A9 Angell Nail & Chaplet Co. A10 Armco Steel Corp.	
A11 Atlantic Steel Co. A14 Athenia Steel Division,	N2 National Supply Co. N5 Nelsen Steel & Wire Co. N6 New England High Carbon
A14 Athenia Steel Division,	Wire Co.
National-Standard Co.	N8 Newman-Crosby Steel Co. N9 Newport Steel Corp. N12 Niles Rolling Mill Co.
B2 Bethlehem Steel Co.	N9 Newport Steel Corp.
B2 Bethlehem Steel Co. B3 Bethlehem Pacific Coast Steel	N12 Niles Rolling Mill Co. N14 Northwest Steel Rolling Mills
Corn	Inc.
B4 Blair Strip Steel Co. B5 Bliss & Laughlin Inc. B6 Boiardi Steel Corp.	N15 Northwestern Steel & Wire Co.
B6 Boiardi Steel Corp.	O2 Ohio Seamless Tube Co.
PO Brainard Steel Co	O4 Oregon Steel Mills
B12 Bullaio Steel Co. B13 Rundy Tubing Co.	р
B12 Buffalo Steel Co. B13 Bundy Tubing Co. B14 A. M. Byers Co.	P1 Pacific States Steel Corp.
С	P2 Pacific Tube Co.
C1 California Cold Rolled Steel	P2 Pacinc Tube Co. P5 Pilgrim Drawn Steel Div., Automotive Materials Corp. P7 Pittsburgh Steel Co. P8 Pittsburgh Tool Steel Wire Co. P9 Pittsburgh Tube Co.
Corp. C5 Central Iron & Steel Div.,	P7 Pittsburgh Steel Co.
Barium Steel Corp.	P8 Pittsburgh Tool Steel Wire Co. P9 Pittsburgh Tube Co.
C6 Chicago Steel & Wire Co.	P11 Pollak Steel Co.
C8 Cold Metal Products Co.	P13 Precision Drawn Steel Co.
C11 Columbia Steel Co.	P18 Prentiss & Co., Geo. W.
C10 Colorado Fuel & Iron Corp. C11 Columbia Steel Co. C12 Columbia Steel & Shafting Co. C16 Continental Steel Corp. C17 Comperwald Steel Corp.	R1 Reeves Steel & Mfg. Co.
C17 Copperweld Steel Co.	R2 Republic Steel Corp.
C19 Cumberland Steel Co.	R3 Rhode Island Steel Corp. R5 Roebling's Sons Co., John A.
C17 Copperweld Steel Co. C19 Cumberland Steel Co. C20 Cuyahoga Steel & Wire Co. C21 California Wire Cloth Corp.	R6 Rome Strip Steel Co. Inc.
D	R7 Rotary Electric Steel Co.
D1 Davis Wire & Cable Corp.	S
D2 Detroit Steel Corp.	S1 Seneca Wire & Mfg. Co. S2 Service Steel Co.
D3 Detroit Tube & Steel Div., Sharon Steel Corp.	S3 Sharon Steel Corp.
D4 Disston & Sons Inc., Henry	S5 Sheffield Steel Corp. S14 Standard Tube Co.
D5 Driscoll Wire Co.	S14 Standard Tube Co. S15 Stanley Works
E CALL DOWN COLOR	S17 Superior Drawn Steel Co.
E5 Elliott Bros. Steel Co. E6 Empire Steel Corp.	S19 Sweet's Steel Co.
F	S21 Shenango Tube Co. S22 Summerill Tubing Co. Div.,
F3 Fitzsimons Steel Co.	Columbia Steel & Shafting Co. S23 Superior Tube Co.
F4 Follansbee Steel, Corp. F7 Ft. Howard Steel & Wire	T
Div., Research Parts & En-	T4 Texas Steel Co.
gineering Corp.	T5 Thomas Steel Co. T6 Thompson Wire Co.
G1 Geneva Steel Co.	T7 Timken Roller Bearing Co.
G3 Globe Steel Tubes Co.	T8 Toledo Steel Tube Co.
G4 Granite City Steel Co.	T12 Tube Reducing Corp.
G4 Granite City Steel Co. G5 Great Lakes Steel Corp. G6 Greer Steel Co.	U5 United States Steel Co.
H	V
H6 Hind Steel Co. Inc.	V4 .Van Huffel Tube Co.
I-1 Igoe Bros. Inc.	W1 Wallace Barnes Co.
I-2 Inland Steel Co.	W2 Wallingford Steel Co.
3	W3 Washburn Wire Co. W6 Weirton Steel Co.
J4 Johnson Steel & Wire Co. Inc. J5 Jones & Laughlin Steel Corp.	W8 Western Automatic Machine
J7 Judson Steel Corp.	Screw Co
K	W9 Wheatland Tube Co. W10 Wheeling Steel Corp. W11 Wickwire Bros. Inc.
K1 Kaiser Steel Corp. K3 Keystone Drawn Steel Co.	W11 Wickwire Bros. Inc.
K4 Keystone Steel & Wire Co.	Colorado Fuel & Iron Corp.
K5 Kidd Drawn Steel Co. K6 Knoxville Iron Co.	W12 Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp. W13 Wilson Steel & Wire Co. W14 Wisconsin Steel Div.,
L LINDAVING TON CO.	W14 Wisconsin Steel Div., International Harvester Co.
L1 Laclede Steel Co.	W16 Worth Steel Co.
L2 LaSalle Steel Co. L7 Lukens Steel Co.	W18 Wyckoff Steel Co.
L' Lukens Steel Co.	W19 Worcester Pressed Steel Co. W20 Worcester Wire Works Div.,
M1 McLouth Steel Corp.	National-Standard Co.
M2 Macwhyte Co. M3 Madison Wire Co. Inc.	Y1 Youngstown Sheet & Tube Co.
Ma Madison wire Co. Inc.	11 Toungstown Sheet & Tube Co.

FLAT-ROLLED CARBON STEEL

(Code number following mill point indicates producing company, key on page 38)

Hot-Rolled Sheets, Coil stock.

Ifrs. Max.	Mfrs. Max. Std. Width	Mfrs. Max. Std. Width	Mfrs. Max. Std. Width
age (in.) Mill Point, Producer	Gage (in.) Mill Point, Producer	Gage (in.) Mill Point, Produces	Gage (in.) Mill Point, Producer
225 Conshohocken,Pa, A3	936 Trenton, Mich. M1	1236 Warren, O. R2	1476 Pittsburgh J5
325 Conshohocken,Pa, A3	936 Warren, O. R2	1238 Youngstown U5	1513 % Weirton, W. Va. W6
416% Fontana, Calif. K1	938 Youngstown U5	1238½ Butler,Pa. A10	1516 Conshohocken, Pa. A3
425 Conshohocken, Pa. A3	938½ Butler, Pa. A10	1254 Steubenville, O. W10	1516 Sharon, Pa. S3
449 Dravosburg,Pa. U5	960 Geneva. Utah G1	1260 Fontana, Calif. K1	1536 Warren, O. R2
449 Gary, Ind. U5	960 Pittsburg, Calif. C11	1260 Geneva, Utah G1	1538 Youngstown U5
516% Fontana, Calif. K1	972 Fontana, Calif. K1	1260 Pittsburg, Calif, C11	1538½ Butler,Pa. A10
522 Sharon, Pa. S3	972 IndianaHarbor, Ind. I-2	1260 SparrowsPoint, Md. B2	1548 IndianaHarbor, Ind. I-2
525 Conshohocken, Pa. A3	973 Dravosburg,Pa. U5	1272 IndianaHarbor, Ind. I-2	1548 Lackawanna, N.Y. B2
549 Dravosburg, Pa. U5	973 Gary.Ind. U5	1273 Dravosburg,Pa, U5	1548 SparrowsPoint, Md. B2
549 Gary, Ind. U5	990 Cleveland R2	1273 Gary, Ind. U5	1548 Steubenville, O. W10
618½ Weirton, W. Va. W6	990 Pittsburgh J5	1287 Cleveland R2	1549 Geneva, Utah G1
622 Sharon, Pa. S3	9 and hvr 60 SparrowsPt., Md. B2	1290 Pittsburgh J5	1549 Pittsburg, Calif C11
625 Conshohocken,Pa. A3	1017 Detroit M1	12 and hvr72 Lackawna, N.Y. B2	1560 Ecorse, Mich. G5
638 Youngstown U5	1021½ Weirton, W. Va. W6	1318 Weirton, W. Va. W6	1561 Cleveland R2
648 Fontana, Calif, K1	1022 Sharon.Pa. S3	1320 Conshohocken, Pa. A3	1561 Dravosburg, Pa. U5
649 Dravosburg,Pa. U5	1025 Conshohocken, Pa. A3	1322 Sharon, Pa. S3	1561 Gary, Ind. U5
649 Gary, Ind. U5	1036 Trenton, Mich. M1	1336 Trenton, Mich. M1	1566 Pittsburgh J5
660 Geneva, Utah G1	1036 Warren.O. R2	1336 Warren, O. R2	1616 Conshohocken, Pa. A3
660 Pittsburg, Calif. C11	1038 Youngstown U5	1338 Youngstown U5	1616 Sharon, Pa. S3
719½ Weirton, W. Va. W6	1038½ Butler.Pa. A10	1338½ Butler,Pa. A10	1636 Butler, Pa. A10
722 Sharon, Pa. S3	1060 Geneva, Utah G1	1348 Fontana, Calif. K1	1636 Warren, O. R2
725 Conshohocken, Pa. A3	1060 Pittsburg, Calif. C11	1348 IndianaHarbor,Ind. I-2	1638 Youngstown U5
738 Youngstown U5	1060 SparrowsPoint, Md. B2	1348 Wilders, Ky. N9	1648 Ecorse, Mich. G5
738½ Butler,Pa. A11	1072 Fontana, Calif. K1	1349 Geneva, Utah G1	1648 IndianaHarbor, Ind. I-2 1648 Lackawanna, N.Y. B2
760 Geneva, Utah G1	1072 IndianaHarbor, Ind. I-2	1349 Pittsburg, Calif. C11	
760 Pittsburg, Calif. C11	1073 Dravosburg, Pa. U5	1351 Steubenville, O. W10	
772 Fontana, Calif. K1	1073 Gary, Ind. U5	1360 Lackawanna, N.Y. B2	
773 Dravosburg,Pa. U5	1090 Cleveland R2	1360 SparrowsPoint, Md. B2	
773 Gary, Ind. U5	1090 Pittsburgh J5	1373 Dravosburg,Pa. U5	1649 Pittsburg, Calif. C11 1658 Cleveland R2
790 Pittsburgh J5	1117 Detroit M1	1373 Gary,Ind. U5 1376 Cleveland R2	1660 Pittsburgh J5
and hvr36 Warren, O. R2	1121 ½ Weirton, W. Va. W6	1384 Pittsburgh J5	1661 Dravosburg,Pa. U5
and hvr90 Cleveland R2	1122 Sharon, Pa. S3	13 and hvr80 Ecorse Mich. G5	1661 Gary, Ind. U5
819½ Weirton, W. Va. W6	1125 Conshohocken, Pa. A3	1417 Weirton, W. Va. W6	1730 Warren,O. R2
822 Sharon, Pa. S3	1136 Trenton, Mich. M1	1418 Conshohocken, Pa. A3	1732 Butler, Pa. A10
825 Conshohocken, Pa. A3	1136 Warren, O. R2	1418 Sharon.Pa. S3	1736 IndianaHarbor, Ind. I-2
836 Trenton, Mich. M1	1138 Youngstown U5	1432 Trenton, Mich. M1	1738 Youngstown U5
836 Warren, O. R2	1138½ Butler,Pa. A10	1436 Fontana, Calif. K1	1742 SparrowsPoint, Md. B2
838 Youngstown U5	1154 Steubenville, O. W10	1436 Warren, O. R2	1746 Cleveland R2
838½ Butler, Pa. A10	1160 Geneva, Utah G1	1438 Youngstown U5	1749 Dravosburg, Pa. U5
860 Geneva, Utah G1	1160 Pittsburg, Calif. C11	1438½ Butler.Pa. A10	1749 Gary, Ind. U5
860 Pittsburg, Calif. C11 872 Fontana Calif. K1	1166 Fontana, Calif. K1	1448 IndianaHarbor, Ind. I-2	1756 Pittsburgh J5
	1172 IndianaHarbor,Ind. I-2	1449 Geneva, Utah G1	1830 Warren, O. R2
	1173 Dravosburg,Pa. U5	1449 Pittsburg, Calif. C11	1832 Butler, Pa. A10
873 Gary,Ind. U5 890 Cleveland R2	1173 Gary, Ind. U5	1450 Steubenville, O. W10	1836 IndianaHarbor, Ind. I-2
890 Cleveland R2	1190 Cleveland R2	1454 SparrowsPoint,Md. B2	1838 Youngstown U5
	1190 Pittsburgh J5	1460 Lackawanna, N.Y. B2	1842 SparrowsPoint, Md. B2
917 Detroit M1	1219 Weirton, W. Va. W6	1464 Ecorse, Mich. G5	1846 Cleveland R2
921½ Weirton, W. Va. W6	1222 Sharon, Pa. S3	1467 Dravosburg, Pa. U5	1848 Pittsburgh J5
922 Sharon,Pa. S3	1223 Conshohocken, Pa. A3	1467 Gary,Ind. U5	1849 Dravosburg,Pa. U5
925 Conshohocken, Pa. A3	1236 Trenton, Mich. M1	1470 Cleveland R2	1849 Gary,Ind. U5



Hot-Rolled Sheets, Cut lengths.

	d. Max. Length		Std.	Max. Length		Std.	Max. Lengt	
	age (inches)	Mill Point, Producer	Gage	(inches)	Mill Point, Producer	Gage	(inches)	Mill Point, Producer
	116% x252	Fontana, Calif. K1		78x600	Munhall.Pa. U5			Cleveland J5
	438x360	Youngstown U5		84x540	Munhall, Pa. U5	9		Fontana, Calif. K1
	448x96	Newport, Ký. N9		88¼ x 240	SouthChicago,Ill. U5	9	722240	IndianaHarbor, Ind. I-2
	448x168	Youngstown Y1		90x240	Cleveland R2	9	73 2300	Gary, Ind. U5
	448x900	Munhall, Pa. U5		90x480	Munhall.Pa. U5	9	73 73 73 74	Dravosburg.Pa. U5
	449x300	Gary, Ind. U5		90x480	Pittsburgh J5	9		Munhall, Pa. U5
	149x354	Dravosburg, Pa. U5		ier.36x600	Warren, O. R2	9		Munhall, Pa. U5
	460x220	Ashland, Ky. A10		20x240	Sharon, Pa. S3	9		SouthChicago, Ill. U5
	516% x252	Fontana, Calif. K1		25x300	Conshohocken, Pa. A3	9	90x240	Cleveland R2
	538x360	Youngstown U5		36x156	Newport, Ky. N9	9	90x360	Munhall, Pa. U5
	548x108	Newport, Ky, N9		36x240	Trenton, Mich. M1	9	90x360	Pittsburgh J5
	548x168	Youngstown Y1		36x600	Warren.O. R2	9 and heavi		SparrowsPoint, Md. B2
	548x900	Munhall, Pa. U5		38x360	Youngstown U5	10		Sharon, Pa. S3
1 5	549x300	Gary, Ind. U5		48x110	Torrance, Calif. C11	10	25x300	Conshohocken, Pa. A3
1 5	549x354	Dravosburg,Pa. U5	8	48x144	Newport, Ky. N9	10	36x240	Trenton, Mich. M1
1 5	560x220	Ashland, Ky. A10	8	50x96	Torrance, Calif. C11	10	36x600	Warren, O. R2
1 6	620x240	Sharon, Pa. 83	8	54x192	Steubenville, O. W10	10	38x360	Youngstown U5
1 6	625x300	Conshohocken, Pa. A3	8	60x240	Ashland, Ky, A10	10		
	836x240	Trenton, Mich. M1		72x168	Youngstown Y1	10,	48x123	Kokomo, Ind. C16
	638x360	Youngstown U5	8	72x240	Cleveland J5	10	48x144	Torrance, Calif. C11
	648 x12 0	Newport, Ky. N9		72x240	Fontana, Calif. K1	10	48x156	Newport, Ky. N9
	648x240	Fontana, Calif. K1		72x240	IndianaHarbor, Ind. I-2	10	48x216	Pittsburg, Calif. C11
	648x900	Munhall,Pa. U5		73x300	Gary, Ind. U5	10	50x120	Torrance, Calif. C11
	649x300	Gary, Ind. U5		73x354	Dravosburg,Pa. U5	10		Steubenville, O. W10
	649x354	Dravosburg, Pa. U5		78x600	Munhall, Pa. U5	10	60x240	Ashland, Ky. A10
	660x240	Ashland, Ky. A10		84x480	Munhall,Pa. U5	10		SparrowsPoint, Md. B2
	672x168	Youngstown Y1		88 1/4 x240	SouthChicago,III. U5	10		Munhall, Pa. U5 Munhall, Pa. U5
	and heavier, 90x360	Cleveland R2		90x240	Cleveland R2	10	70m160	Youngstown Y1
	5 and heavier. 90x480	Pittsburgh J5		90x360 90x480	Munhall, Pa. U5	10		Cleveland J5
	7	Sharon, Pa. S3 Conshohocken, Pa. A3		20x480	Pittsburgh J5	10	722240	Fontana, Calif. K1
	736x156	Newport.Ky. N9		25x300	Sharon, Pa. S3 Conshohocken, Pa. A3	10		IndianaHarbor.Ind. I-2
	736x240	Trenton, Mich. M1		36x156	Newport, Ky, N9	10		Munhall.Pa. U5
	738x360	Youngstown U5		36x240	Trenton, Mich. M1	10		Dravosburg, Pa. U5
	748x102	Torrance, Calif. C11		36x600	Warren, O. R2	10		Gary, Ind. U5
	748x144	Newport, Ky, N9		38x360	Youngstown U5	10		Munhall.Pa. U5
	754x192	Steubenville, O. W10		38 ½ x240	Butler, Pa. A10	10		SouthChicago, Ill. U5
	760x240	Ashland, Ky. A10		48x120	Torrance Calif. C11	10		Cleveland R2
	772x168	Youngstown Y1		48x144	Newport, Ky. N9	10	90x360	Pittsburgh J5
	772x240	Cleveland J5	9		Torrance, Calif. C11	11		Sharon, Pa. S3
	772x240	Fontana, Calif. K1		54x192	Steubenville, O. W10	11	25x300	Conshohocken, Pa. A3
1 7	772x240	IndianaHarbor, Ind. 1-2		60x240	Ashland, Ky. A10	11	36x240	Trenton, Mich. M1
	773x300	Gary, Ind. U5		60x500	Munhall, Pa. U5	11		Warren, O. R2
1 7	773x354	Dravosburg, Pa. U5	9	72x168	Youngstown Y1	11	38x360	Youngstown U5
1								

inuary 15, 1951



Hot-Rolled Sheets, Cut lengths

CONTINUED FROM PRECEDING PAGE

Mfrs. Max. Width	h .	Mfrs.	Max. Width		Mfrs,	Max. Width	
Std. Max. Lengt	h Mill Point, Producer	Std. Gage	Max. Length (inches)	n Mill Point, Producer	Std. Gage	Max. Length	
Gage (inches)				IndianaHarbor.Ind. I-2		(inches)	Mill Point, Producer
1138½ x240	Kokomo, Ind. C16	13	72x240 73x203	Dravosburg, Pa. U5	16	50x96	Pittsburg, Calif. C11 Torrance, Calif. C11
1148x138 1148x144	Torrance, Calif. C11	13	73x264	Gary, Ind. U5	16	54×200	Ashland, Ky. A10
1148x156	Newport, Ky. N9	13	76x144	Cleveland R2	16	58x144	Cleveland R2
1148x192	Steubenville, O. W10	13	84x216	Pittsburgh J5	16	60x168	Pittsburgh Jö
1148x216	Pittsburg, Calif. C11	13 and he	eavier.17 1/2 x 120	Detroit M1	16	60x168	Youngstown Y1
1150x120	Torrance, Calif. C11		eavier.80x200	Ecorse, Mich. G5	16	60x192	IndianaHarbor, Ind. I-2
1154x156	Steubenville, O. W10		17x300	Weirton, W. Va. W6	16		Gary, Ind. U5
1160x240	Ashland, Ky. A10 SparrowsPoint, Md. B2	14	18x300	Conshohocken, Pa. A3	16 16 and heavie	61XZU3	Dravosburg, Pa. U5
1160x240 1166x240	Fontana, Calif. K1		20x240	Sharon, Pa. S3 Trenton, Mich. M1	17		Detroit M1 Warren, O. R2
1166x240 1166x360	Munhall, Pa. U5		31x240 ,36x240	Fontana, Calif. K1	17	.,32x240	Butler, Pa. A10
1172x168	Youngstown Y1		36x240	Warren, O. R2	17	36x156	IndianaHarbor, Ind. I-2
1172x240	Cleveland J5	14	38x240	Youngstown U5	17	38x240	Youngstown U5
1172x240	IndianaHarbor, Ind. I-2	14	38½ x240	Butler, Pa. A10	17	42x144	SparrowsPoint, Md. B2
1173x264	Dravosburg, Pa. U5	14	48x144	Kokomo, Ind. C16	17	46x144	Cleveland R2
1173x264	Gary, Ind. U5 Munhall, Pa. U5		48x156	Newport, Ky. N9	17		Newport, Ky. N9 Torrance, Calif. C11
11	SouthChicago,Ill. U5		48x156	Torrance, Calif. C11	17	48x168	Youngstown Y1
1190x240	Cleveland R2		48x192	SparrowsPoint,Md. B2 Steubenville,O. W10	17	.49x144	Gary, Ind. U5
1190x300	Pittsburgh J5	14	48x192	Pittsburg, Calif. C11	17	49x203	Dravosburg, Pa. U5
11 and heavier. 21 ½ x300			48 to 54x144	SparrowsPoint, Md. B2	17	50x96	Torrance, Calif. C11
1219x300	Weirton, W. Va. W6	14	50x120	Torrance, Calif. C11	17	56x160	Pittsburgh J5
1220x240	Sharon, Pa. S3	14	50x156	Steubenville, O. W10	18,		Warren, O. R2
1223x300	Conshohocken, Pa. A3	14	54x200	Ashland, Ky. A10	18		Butler, Pa. A10
1236x240	Trenton, Mich. M1	14	60x144	Lackawanna, N.Y. B2	18		Torrance, Calif. C11 Indiana Harbor, Ind. I-2
1236x600	Warren, O. R2		60x156	Cleveland J5	18		Youngstown U5
1238x240	Youngstown U5 Butler, Pa. A10	14	64x200 66x168	Ecorse, Mich. G5 Youngstown Y1	18,	42x144	Newport, Ky. N9
1238½ x240 1248x144	Kokomo, Ind. C16	14		IndianaHarbor, Ind. I-2	18	42x144	SparrowsPoint, Md. B2
1248x144 1248x156	Newport, Ky. N9	14	67x192	Gary, Ind. U5	18		Cleveland R2
1248x156	Torrance, Calif. C11	14	67x203	Dravosburg, Pa. U5	18		Newport, Ky. N9
1248x192	Steubenville, O. W10	14	70x144	Cleveland R2	18		Kokomo, Ind. C16
1248x216	Pittsburg, Calif. C11	14	76x168	Pittsburgh J5	18		Torrance, Calif. C11 \\ Pittsburgh J5
1250x120	Torrance, Calif. C11	14 and he	avier.15x120	Detroit M1	18		Youngstown Y1
1254x156	Steubenville, O. W10 Munhall, Pa. U5	15	13½x300	Weirton, W. Va. W6	18	49x144	Gary, Ind. U5
1254x360 1260x240	Ashland, Ky. A10	15	20x240	Sharon, Pa. S3	18	49x203	Dravosburg, Pa. U5
12	Fontana, Calif. K1		36x600 38x240	Warren, O. R2 Youngstown U5	19		Newport, Ky. N9
1260x240	SparrowsPoint, Md. B2		38x240	Butler, Pa. A10	19		Newport, Ky. No
1272x168	Youngstown Y1	15	43x188	SparrowsPoint, Md. B2	20	497190	Newport, Ky. N9 Newport, Ky. N9
1272x240	Cleveland J5	15over	43 to 48x144	SparrowsPoint, Md. B2	20	48x144	Kokomo, Ind. C16
1272x240	IndianaHarbor, Ind. I-2	15	48x144	Lackawanna, N.Y. B2	21	42x144	Newport, Ky. N9
1272x240	Munhall, Pa. U5		48x156	Newport, Ky. N9	21	48 x120	Newport, Ky. N9
1273x264 1273x264	Dravosburg, Pa. U5 Gary, Ind. U5		48x156	Torrance, Calif. C11	22	42x144	Newport, Ky. N9
1287x156	Cleveland R2		48x192 48x216	Steubenville, O. W10	22	48x120	Newport, Ky. N9
1290x240	Pittsburgh J5		48x216	Pittsburg, Calif. C11 Torrance, Calif. C11	22	48x144	Kokomo, Ind. C16
12 and heavier.72x264	Lackawanna, N.Y. B2		54x200	Ashland, Ky. A10	23 23	42X144	Newport, Ky. N9 Newport, Ky. N9
1318x300	Weirton, W. Va. W6	15,	60x168	Youngstown Y1	24	36x144	Kokomo, Ind. C16
1320x240	Sharon, Pa. S3	15	60x192	IndianaHarbor, Ind. I-2	24	36x144	Newport, Ky. N9
1320x300	Conshohocken, Pa. A3		60x200	Ecorse, Mich. G5	24over 36 t	o 48x120	Kokomo, Ind. C16
1334x240	Trenton, Mich. M1		61×144	Cleveland R2	24		Newport, Ky. N9
1336x600	Warren, O. R2 Youngstown U5	15	61x180 61x203	Gary, Ind. U5	25	36x144	Newport, Ky. N9
1338x240 1338½x240	Butler, Pa. A10		66x168	Dravosburg, Pa. U5 Pittsburgh J5	25	.42x120	Newport, Ky. N9 Kokomo, Ind. C16
1348 x 156	Newport, Ky. N9		20x240	Sharon,Pa. S3	26 26	36×144	Newport, Ky. N9
1348x156	Torrance, Calif. C11		36x240	Butler, Pa. A10	26 over 36 t	42x120	Kokomo, Ind. C16
1348x192	Steubenville, O. W10	16	36x600	Warren, O. R2	26	.42x120	Newport, Ky. N9
1348 x216	Pittsburg, Calif. C11	16	38x240	Youngstown U5	27	.,36x144	Newport, Ky. N9
1348x240	Fontana, Calif. K1	16,	43x188 43 to 48x144	SparrowsPoint, Md. B2	27	.42x120	Newport, Ky. N9
1350x120	Torrance, Calif. C11 SparrowsPoint, Md. B2			SparrowsPoint, Md. B2 Kokomo, Ind. C16	28	.36x144	Kokomo, Ind. C16
1350x192 13over 50 to 60x144	SparrowsPoint, Md. B2	16	48x144	Lackawanna, N.Y. B2	28	.36X144	Newport, Ky. N9 Kokomo, Ind. C16
1351x156	Steubenville, O. W10		48x156	Cleveland J5	28		Newport, Ky. N9
1354x200	Ashland, Kv. A10		48x156	Newport, Ky. N9	29		Newport, Ky. N9
1354x200 1360x264	Lackawanna, N.Y. B2	16	48x156	Torrance, Calif. C11	29	.40x120	Newport, Ky. N9
1366x240	Cleveland J5		48x192	Steubenville, O. W10	30	.36x144	Newport, Ky. N9
1372x168	Youngstown Y1	16	48x200	Ecorse, Mich. G5	30	.40x120	Newport, Ky. N9



Hot-Rolled Annealed Sheets.

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	448x96	Newport, Ky, N9	2036x144	Dover.O. R1	2442x120
	548x108	Newport, Ky. N9	2048x120	Mansfield, O. E6	2448x120
	648x120	Newport, Ky. N9	2048x120	Newport, Ky. N9	2448x120
	748x144	Newport, Ky. N9	2048x144	Niles.O. N12	2448x144
	848x144	Newport, Ky. N9	20	Torrance, Calif. C11	2536x144
	948x144	Newport, Ky. N9	2130x150	Torrance, Calif. C11	2536x144
	1048x156	Newport, Ky. N9	21	Dover, O. R1	2536x144
	1148x156	Newport, Ky. N9	21	Mansfield, O. E6	2542x120
	1248x156	Newport, Ky. N9	2148x120	Newport, Ky. N9	2542x120
	1348x156	Newport, Ky. N9	2148x144	Niles.O. N12	2636x144
	1448x156	Newport, Ky. N9	2148x144	Torrance, Calif. C11	2636x144
	1548x156	Newport, Ky. N9	2230x150	Torrance, Calif. C11	2636x144
	1636x144	Dover.O. R1	2236x144	Dover.O. R1	2638x120
	1648x120	Mansfield, O. E6	2236x144	Torrance, Calif. C11	2642x120
	1648x156	Newport, Ky. N9	2244x120	Mansfield, O. E6	2730x144
	1736x144	Dover O. R1	2248x120	Newport, Ky. N9	2736x120
	1748x120	Mansfield, O. E6	2248x120	Torrance, Calif. C11	2736x144
	1748x144	Newport, Ky. N9	2248x144	Niles, O. N12	2736x144
	1836x144	Dover, O. R1	2330x150	Torrance, Calif. C11	2742x120
	1848x120	Mansfield, O. E6	2336x144	Dover, O. R1	2830x144
	1848x120	Newport, Ky. N9	2336x144	Torrance, Calif. C11	2836x120
	1936x144	Dover, O. R1	2344x120	Mansfield, O. E6	2836x144
	1936x150	Torrance, Calif. C11	2348x120	Newport, Ky. N9	28
	1948x120	Mansfield, O. E6	2348x120	Torrance, Calif. C11	2842x120
ı	1948x120	Newport, Ky. N9	23.,48x144	Niles, O. N12	2936x144
ı	1948x144	Niles,O. N12	2430x150	Torrance, Calif. C11	2940x120
	1948x144	Torrance, Calif. C11	2436x144	Dover, O. R1	3036x144
ı	2030x150	Torrance, Calif. C11	2436x144	Torrance, Calif. C11	3040x120

Mansfield, O. Es
Newport, Ky. N9
Torrance, Calif. C11
Niles, O. N12
Dover, O. R1
Niles, O. N12
Torrance, Calif. C11
Mansfield, O. Es
Newport, Ky. N9
Dover, O. R1
Niles, O. N12
Torrance, Calif. C11
Mansfield, O. Es
Newport, Ky. N9
Dover, O. R1
Niles, O. N12
Torrance, Calif. C11
Newport, Ky. N9
Torrance, Calif. C11
Niles, O. N12
Newport, Ky. N9
Dover, O. R1
Newport, Ky. N9

FLAT-ROLLED CARBON STEEL

(Code number following mill point indicates producing company, key on page 38)

Cold-Rolled Sheets, Coil stock

Gege [n.] Mill Fols, Freducer Gege [n.] Mill Fols, Freducer Gege Gal Mill Fols, Freducer Geg Gal Mill Fols, Freducer Gal		frs. N d. Wi	lax. idth		Mfrs. Std.	Max. Width		Mfrs. Std.	Max. Width		Mfrs. Std.	Max. Width	
10				Mill Point, Producer						Mill Point, Producer			Mill Point, Producer
11. 48					17	48	Pittsburg, Calif. C11			Lackawanna, N.Y. B2			
11. 21. Lackawanan, N. P. 17 70.	10	D	90		17	48	SparrowsPoint, Md. B2	21	66		25	48	
11	1 1	1	24 39 14	Rutler Pa A10	17	70		21	68		20	52 1	
11 and by	; 1:	1	48		17	72		21	68	Gary, Ind. U5	26	32	
11 and hvr 42 Weitron, W. Ve, Wo	13	1 '	72	Lackawanna, N.Y. B2	17	72	Gary, Ind. U5	21	72	IndianaHarbor, Ind. I-2	26	33 ½	Weirton, W. Va. W6
12 36					17	72	IndianaHarbor,Ind. I-2	21	74		26	36	Dravosburg,Pa. U5
12	111	l and hy	T	42 Weirton, W. Va. W6	17	72					26	36	Lackawanna N V R2
12	1 1	2	38 ¼	Butler.Pa. A10	17	90	Cleveland R2	22	26		26	36	
12	: 1:	2	46	Weirton, W. Va. W6	17	90		22	36	Follansbee, W. Va. F4	26	36	Warren, O. R2
12 72 Lackawanan N.Y. B2 18 36 Follanbee, W.V. P. P. P. P. P. P. P. P. Middletown, O. A12 38 58 Warrano, R. P.	1 1	2	48	Cleveland J5			_	22	36	Warren, O. R2			
12	1 1	2	72		18	. 36	Follanshee W. Va. F4	22	38 1	Butler, Pa. A10	26	38	
12 90 Cleveland R2 18 35 Stather N. Allo 22 48 Granticity, III, G4 24 24 31 25 25 32 34 34 34 34 34 34 34	1:	2	72		18	36	Warren O. R2	22	48	Cleveland J5	26	38	Youngstown Y1
13	; 1:	2	90	Cleveland R2	18	384	Butler, Pa. A10	22	48	GraniteCity,Ill. G4	26	38 1/2	Butler, Pa. A10
13	1	3	36	Warren, O. R2	18	48	Cleveland J5	22	48	Middletown, O. A10	26	42	
13	13	3 3	38 ½ 46	Weirton W V2 W6	18	48	GraniteCity, III. G4	22	48	SparrowsPoint, Md. B2	26	42	SparrowsPoint, Md. B2
13	1	3	48	Cleveland Jo	18	48	Pittsburg, Calif. C11	22	48	Steubenville, O. W10	26	48	Cleveland R2
13	1	3	60		18	48	Stephenville O W10	1 22	60				
13	1:	3 3	62 . 70	IndianaHarbor,Ind. I-2	18	70	Youngstown Y1	22	60	Gary Ind 115	27	33	Chicago Y1
14. 38	1:	3	72		18	72	Dravosburg,Pa. U5	22	60	Lackawanna, N.Y. B2	27	33 ½	Weirton, W. Va. W6
14. 38	. 1:	3	72	Middletown, O. A10	18	72	Gary, Ind. Ub	22	60	Youngstown Y1	27	36	Dravosburg, Pa. U5
14. 38 Buller, Pa. Al. 18. 72 Middletown, O. Al. 19. 36 Cleveland 15. 18. 90 Pittsburgh 15. 23. 27 7. 36 Steuberoville, O. Warren, O. R. 27. 36 Youngstown Y1. 4. 70 Youngstown Y1. 9. 36 Warren, O. R. 23. 36 Warren, O. R. 27. 38 Grantectly, III. 40 Youngstown Y1. Y2. Y4. Y					18	72		22	(2		27	36	Lackawanna.N.Y. B2
14. 48 SparrowsPoint, Md. B2 18. 90 Cleveland R2 23. 16 Fontana, Calif, KI 14. 48 SparrowsPoint, Md. B2 19. 16 Fontana, Calif, KI 22. 38 SparrowsPoint, Md. B2 19. 36 Fontana, Calif, KI 23. 38 Warren, O. R2 23. 38 Warren, O. R2 27. 38 Gary, Ind. US 27. 28 27. 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 28 27. 2	1	4	36	Warren, O. R2	18	72	Middletown, O. A10	22	90		27	36	Pittsburg, Calif. C11
14. \$25 Steubenville, O. Wilder, P. 15. 15. Fontana, Calif. K. I. 12. 35. Steubenville, O. Wilder, P. 15. Steubenville, O. Wilde	1 1	4	46	Weirton. W. Va. W6	18,	90					27	36	
14. \$25 Steubenville, O. Wilder, P. 15. 15. Fontana, Calif. K. I. 12. 35. Steubenville, O. Wilder, P. 15. Steubenville, O. Wilde	1-	4	48	Cleveland J5	18	90	Pittsburgh J5	23	27	Chicago Y1	27	36	
14. 70	- DE C	4	48	SparrowsPoint, Md. B2				23	36	Follansbee, W.Va. F4	27	36	Youngstown Y1
14	, 1	4	70		19	36	Follansbee, W. Va. F4	23	36		27	. , .38	Gary, Ind. U5
14	1 1	4	70	Youngstown Y1	19	36	Warren, O. R2	23	42	Weirton, W. Va. W6	27	38	Middletown, O. A10
14	1 1	4	72	Dravosburg,Pa. U5	19	46	Weirton, W. Va. W6	23	48	Dravosburg, Pa. U5	27	38 ½	Butler, Pa. A10
14	1 1	4	$\frac{72}{72}$		19	48	GraniteCity, III. G4	23	48		27	48	
14	3 1	4	12	Lackawanna, N.Y. B2	19	48		23	48		28	16	
15	1	4	72		19	. 52	Steubenville, O. W10	23	48	Pittsburg, Calif. C11	28	33 1/2	Weirton, W. Va. W6
15 36	1 1	5	16	Fontana Calif. K1	19	70	Youngstown Y1	23	48		28	34	Chicago Y1
15	8 1	D	36	Warren, O. R2	19	72		23	48		28	36	
15	1	5	38 1/2	Butler, Pa. A10	19	72	Indiana Harbor, Ind. I-2	23	48	Youngstown Y1	28	36	Follansbee.W.Va. F4
15 52	1 1	5	48		19	72	Lackawanna, N.Y. B2	23	54		28	36	Lackawanna, N.Y. B2
15 52	1	5	48	SparrowsPoint, Md. B2	19	72		23	72		28	36	Pittsburg, Calif. C11
15. 72 Dravosburg, Pa. U5 19. 90 Pittsburgh J5 24. 33 ½ Weirton, W. Va. W6 15. 72 IndianaHarbor, Ind. I. 2 20. 24 Chloago Y1 24. 36 Warren, O. R2 25. 38 Gary, Ind. U5 26 27 Chloago Y1 24. 36 Warren, O. R2 25. 38 Gary, Ind. U5 26 27 Chloago Y1 24. 36 Warren, O. R2 25. 38 Middletown, O. A10 27 Middletown, O. A10 28 38 ½ Butler, Pa. A10 29 36 ½ Gary, Ind. U5 29 36 ½ Gary, Ind. U	1 1	5	52		19	90					28	36	Steubenville, O. W10
15. 72	1 1	5	72	Dravosburg.Pa. U5	19	90		24	30	Chicago Y1	28	36	Warren, O. R2
15. 72	. 1	ð	72	Ecorse, Mich. G5	20	16		24	33 7	Weirton, W. Va. W6	28	38	Gary, Ind. U5
15. 72	1 1	5	72		20	24		24	36	Warren.O. R2	28	38	Middletown, O. A10
16. 16	1	5	72		20	36	Warren.O. R2	24	38 1	& Butler.Pa. A10	28	,381/2	Butler, Pa. A10
16. 16	1 1	5	80	Pittsburgh J5	20	383	Butler, Pa. A10	24	45	Youngstown Y1	28	52	
16.	0 1	5	.90		20	46	Weirton, W. Va. W6	24	48		29	33 1/2	
16. 38½ Suttler.Pa. A10 20. 48 SparrowsPoint, Md. B2 24. 48 Middletown, O. A10 29. 36 Middletown, O. A10 21. 48 Middletown, O. A10 29. 36 Middletown, O. A	1 1	6	36	Follansbee, W. Va. F4	20	48		24	48	Gary, Ind. U5	29	36	Dravosburg, Pa. U5
16. 38½ Suttler.Pa. A10 20. 48 SparrowsPoint, Md. B2 24. 48 Middletown, O. A10 29. 36 Middletown, O. A10 21. 48 Middletown, O. A10 29. 36 Middletown, O. A	1	6	36	Warren.O. R2	20	48	Pittsburg, Calif. C11	24	48	Tackawanna N V B2	29	36	Follansbee, W. Va. F4
16.	1 1	6	38 4	Butler, Pa. A10	20	48	SparrowsPoint, Md. B2	24	48		29	36	Lackawanna, N.Y. B2
16.	1 1	6	46	Weirton W. Va. W6	20	70	Youngstown Y1	24	48	Pittsburg, Calif. C11	29	36	Middletown, O. A10
16.	; 1	6	48	Cleveland J5	20. , .	72	Dravosburg, Pa. U5	24	48	Pittsburgh J5	29	36	Pittsburg, Calif. C11
16. 52	1	6	48	Pittsburg, Calif. C11	20	72		24	48		29	36	Warren, O. R2
16. 72 10 70 70 70 70 70 70 70	1	6	52		20	72	Lackawanna, N.Y. B2	24	60		29	38	IndianaHarbor, Ind. I-2
16. 72 72 72 73 74 74 75 75 75 75 75 75	1	6	70	Youngstown \1	20	72	Middletown, O. A10	24	72				
16. .72 Lackawanna, N.Y. B2 21. .16 Fontana, Calif. K1 25. .36 Dravosburg, Pa. U5 30. .36 Gary, Ind. U5 16. .90 Cleveland R2 21. .36 Follansbee, W.Va. F4 25. .36 Lackawanna, N.Y. B2 30. .36 Lackawanna, N.Y. B2 16. .90 Ecorse, Mich. G5 21. .36 Warren, O. R2 25. .36 Pittsburg, Calif. C11 30. .36 Middletown, O. A10 16. .90 Pittsburgh J5 21. .38½ Butler, Pa. A10 25. .36 Warren, O. R2 .30. .36 SparrowsPoint, Md. B2 17. .36 Follansbee, W. Va. F4 12. .46 Weirton, W. Va. W6 25. .38 Steubenville, O. W10 30. .36 SparrowsPoint, Md. B2 17. .36 Follansbee, W. Va. F4 14. 48 GraniteCity, II. G4 25. .38½ Butler, Pa. A10 30. .36 Warren, O. R2 17. .38 Warren, O. R2 21. .48 Middletown, O. A10 25. .40 Youngstown	, 1	6	72		20	90		25	31		30	36	Drayosburg, Pa. 115
16. .72 Lackawanna, N.Y. B2 21. .16 Fontana, Calif. K1 25. .36 Dravosburg, Pa. U5 30. .36 Gary, Ind. U5 16. .90 Cleveland R2 21. .36 Follansbee, W.Va. F4 25. .36 Lackawanna, N.Y. B2 30. .36 Lackawanna, N.Y. B2 16. .90 Ecorse, Mich. G5 21. .36 Warren, O. R2 25. .36 Pittsburg, Calif. C11 30. .36 Middletown, O. A10 16. .90 Pittsburgh J5 21. .38½ Butler, Pa. A10 25. .36 Warren, O. R2 .30. .36 SparrowsPoint, Md. B2 17. .36 Follansbee, W. Va. F4 12. .46 Weirton, W. Va. W6 25. .38 Steubenville, O. W10 30. .36 SparrowsPoint, Md. B2 17. .36 Follansbee, W. Va. F4 14. 48 GraniteCity, II. G4 25. .38½ Butler, Pa. A10 30. .36 Warren, O. R2 17. .38 Warren, O. R2 21. .48 Middletown, O. A10 25. .40 Youngstown	1	6	72	IndianaHarbor, Ind. I-2	20	90	Pittshurgh J5	25	. , .33	Weirton, W. Va. W6	30. :.	36	Follansbee, W. Va. F4
16. 90 Ecorse, Mich. 65 21 38 Warren, O. R2 25 36 Pittsburg, Calif. C11 30 36 Pittsburg, Calif. C11 16. 90 Pittsburgh J5 21 38 Warren, O. R2 25 36 Warren, O. R2 17. 36 Follansbee, W. Va. F4 21 48 GraniteCity, Ill. G4 25 38 Steubenville, O. W10 30 36 Warren, O. R2 17. 38 Warren, O. R2 21 48 Middletown, O. A10 25 38 Butler, Pa. A10 30 36 Pittsburg, Calif. C11 30 36 Warren, O. R2 30 36 Warren, O. R2 17. 38 Warren, O. R2 21 48 Middletown, O. A10 25 38 Butler, Pa. A10 30 36 Warren, O. R2 17. 45 GraniteCity, Ill. G4 25 38 Grany, Ind. U5 31 30 36 Warren, O. R2 17. 45 GraniteCity, Ill. G4 21 48 SparrowsPoint, Md. B2 25 42 GraniteCity, Ill. G4 31 32 36 Warren, O. R2 17. 45 GraniteCity, Ill. G4 31 32 36 Warren, O. R2 17. 45 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 42 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 42 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 42 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 42 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 42 GraniteCity, Ill. G4 31 31 32 36 Cleveland R2 25 38 Warren, O. R2 30 36 Warren, O.	1	6,	72	Lackawanna, N.Y. B2	21	16	Fontana, Calif. K1	25	36	Dravosburg, Pa. U5	30	36	Gary, Ind. U5
16. .90 Ecorse, Mich. 65 21. .38 Warren, O. R2 25. .36 Pittsburg, Calif. C11 30. .36 Sparrowspoint, Md. By Life, Plant, Plan	, 1	6 ,	72		21	26	Cnicago 11	25	36	Lackawanna, N. Y. R2	30	36	Middletown, O. A10
17. 16 Fontana, Calif. K1 21. 48 Warrenton, W. Va. W6 25. 38 Steubenville, O. W10 30. 36 Warren, O. R2 17. 36 Warren, O. R2 21. 48 Middletown, O. A10 25. 38 Butter, Pa. A10 30. 38 IndianaHarbor, Ind. I-2 17. 38 Warren, O. R2 21. 48 Middletown, O. A10 25. 40 Youngstown Y1 30. 45 Cleveland R2 17. 38 Butter, Pa. A10 21. 48 Pittsburg, Calif. C11 25. 42 GranteCity, Ill. G4 31-32. 36 Warren, O. R2 17. 45% GranteCity, Ill. G4 31-32. 36 Cleveland R2 17. 45% GranteCity, Ill. G4 31-32. 36 Cleveland R2 17. 45% GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2 25. 42 GranteCity, Ill. G4 31-32. 36 Cleveland R2	. 1	6	90		21	36	Warren, O. R2	25	36	Pittsburg, Calif. C11	30	36	Pittsburg, Calif. C11
17	, l		90	Pittehureh IS	21	38 7	Butler, Pa. A10	25	36	Warren, O. R2	30	36	SparrowsPoint, Md. B2
1736 Warren, O. R2 2148 Middletown, O. A10 2540 Youngstown Y1 3045 Cleveland R2 1738½ Butler, Pa. A10 2148 Pittsburg, Calif. C11 2542 Gary, Ind. U5 31-3236 Warren, O. R2 1745 GraniteCity. III. G4 2148 SparrowsPoint, Md. B2 2542 GraniteCity, III. G4 31-3436 Cleveland R2	1	7	16	Fontana, Calif. K1	21	46		25	381	Steubenville, O. W10 Butler Pa A10	30	38	
1738½ Buttler, Pa. A10 2148 Pittsburg, Call, C11 2322 Gary, III. C5 31–3436 Cleveland R2 1745¼ GraniteCity, III. G4 31–3436 Cleveland R2	. 1	7	36		21	48	Middletown, O. A10	25	40	Youngstown XI	30	45	Cleveland R2
1746 GraniteCity, III. G4 2148 SparrowsPoint, Md. B2 2542 GraniteCity, III. G4 31-3436 Cleveland R2 1746 Weirton, W. va. W6 2148 Steubenville, O. W10 2542 SparrowsPoint, Md. B2 31-3436 Follansbee, W. Va. F4	. 7		38 1/2	Butler.Pa. A10	21	48	Pittsburg, Calif. C11	25	42		31-32	36	
William William 12 21	1	7	45 1/2	GraniteCity,Ill. G4	21	48	Stephenville O. W10	25	42	SparrowsPoint, Md. B2	31-34	36	Follansbee, W. Va F4
			20	THEIR COLL, TY. VA. YVO	, 22		23040041140,02 1140				,		

	1745½ 1746	GraniteCity,Ill. G4 Weirton,W.Va, W6	2148 SparrowsPoint, Md 2148 Steubenville, O.			31-3436	Follansbee, W. Va. F4
•	C C	old-Rolle	ed Sheets, Cu	ıt lengt	hs		
	Mfrs. Max.Width		Mfrs. Max.Width	Mfrs. Max.\		Mfrs. Max.Widt	
п	Std. Max.Length		Std. Max.Length	Std. Max.L		Std. Max.Leng	
	Gage (inches)	Mill Point, Producer	Gage (inches) Mill Point, Prod			Gage (inches)	Mill Point, Producer
	720x145	Dravosburg,Pa. U5	1124x120 Clevelane			1372x168	Middletown, O. A10
п	724x120	Cleveland J5	1138 ½ x150 Butler, Pa.		72 Dravosburg, Pa. U5 20 Lackawanna, N.Y. B2	1372x172	Dravosburg, Pa. U5 Lackawanna, N.Y. B2
	760x120	Gary, Ind. U5	1148x240 Pittsburgl			1390x240	Cleveland R2
		Dravosburg, Pa. U5 Dravosburg, Pa. U5	1152x152 Steubenville,O. 1160x144 Dravosburg,Pa			1420x145	Dravosburg, Pa. U5
2	820x145 824x120	Cleveland J5	1160x144 Bravosburg, a			14. under 24x1	
	860x120	Gary, Ind. U5	1172x220 Lackawanna, N.Y.			1436x168	Warren, O. R2
		Dravosburg, Pa. U5	1190x240 Cleveland	l R2 1338½:		1438 ½ x15	
2	920x145	Dravosburg, Pa. U5	11 and hvr.42x156Weirtn, W.Va.	W6 1346x1		1446x156	Weirton, W. Va. W6
1	924x120	Cleveland J5	1220x145 Dravosburg,Pa.			1448x160	SparrowsPt.,Md. B2
	960x120	Gary, Ind. U5	1236x168 Warren,O.			14,52x152	Steubenville, O. W10
		Dravosburg, Pa. U5	1238½x150 Butler, Pa.			1460x160 1468x144	Gary, Ind. U5 Gary, Ind. U5
1		Dravosburg, Pa. U5	1242x156 Weirton, W. Va. 1252x152 Steubenville, O.			1470x240	Pittsburgh J5
	1024x120 1060x120	Cleveland J5 Gary.Ind. U5	1254x240 Pittsburg			1472x132	Gary, Ind. U5
		Dravosburg.Pa. U5	1260x144 Gary,Ind.			1472x156	Cleveland J5
	1120x145	Dravosburg, Pa. U5	1272x156 Cleveland		56 Youngstown Y1	1472x168	Middletown, O. A10

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Cold-Rolled Sheets, Cut lengths CONTINUED FROM PRECEDING PAGE

Mfrs. Max. Width		Mirs. Max.	Width		. Width
Std. Max. Lengt Gage (inches)	h Mill Point, Producer		Length Mill Point, Producer		. Length nches) Mill Point, Producer
1472x168	Youngstown Y1	20 under 245	Youngstown Y1	2448:	x156 Lackawanna, N.Y. B2
14	Dravosburg,Pa. U5 Lackawanna,N.Y. B2	20	Chicago Y1 C144 Follansbee, W. Va. F4	24	
1472x230	IndianaHarbor, Ind. I-2	2036x	x168 Warren, O. R2	2448:	x168 Pittsburg, Calif. C11
1472x244 1490x240	Ecorse, Mich. G5 Cleveland R2	20	½x150 Butler, Pa. A10 x156 Weirton, W. Va. W6	24	
1520x145	Dravosburg,Pa. U5	2046x	GraniteCity, Ill. G4 (160 SparrowsPoint, Md. B2	2460:	x180 Cleveland R2
15under 24x144 1536x168	Youngstown Y1 Warren,O. R2	2048x 2048x	168 Pittsburg, Calif. C11	2520:	x145 Dravosburg, Pa. U5
15 351 ₂ x150	Butler, Pa. A10 Weirton, W. Va. W6	20	x152 Steubenville, O. W10	2531: 2533	x72 Chicago Y1 ½x156 Weirton, W. Va. W6
15	SparrowsPoint, Md. B2	20723	168 Middletown, O. A10	25	x144 Dravosburg,Pa. U5
1552x152 1560x160	Steubenville, O. W10 Gary, Ind. U5	20722	d172 Dravosburg,Pa. U5 Gary,Ind. U5	2536: 2536:	
1568x144	Gary, Ind. U5	20	k220 Lackawanna, N.Y. B2	25	x144 Youngstown Y1
15	Gary, Ind. U5 Cleveland J5	20		2536 2538	
1572x168	Middletown, O. A10 Dravosburg, Pa. U5	20902	c240 Cleveland R2	2538	½ x150 Butler, Pa. A10
15	Youngstown Y1	20902	£244 Ecorse, Mich. G5	2542. 2542.	x144 SparrowsPoint, Md. B2
1572x220 1572x230	Lackawanna, N.Y. B2 IndianaHarbor, Ind. I-2	21205 21under 245		2542 2548	
1572x244	Ecorse, Mich. G5	21263	Chicago Y1	2548	x144 Cleveland R2
15	Pittsburgh J5 Cleveland R2	21	Follansbee, W. Va. F4 Warren, O. R2	25	x168 Middletown, O. A10 x144 IndianaHarbor, Ind. I-2
1620X140	Dravosburg, Pa. U5 Youngstown Y1	2138	½x150 Butler.Pa. A10	2620	x145 Dravosburg, Pa. U5
16under 24x144 1636x144	Follansbee, W. Va. F4	21	x144 Steubenville, O. W10	2632	½x156 Weirton, W. Va. W6
1636x168 1638½x150	Warren, O. R2 Butler, Pa. A10	21482	k156 GraniteCity, Ill. G4	2636 2636	x144 Dravosburg,Pa. U5
1645½x156	GraniteCity, Ill. G4	21482	k168 Middletown, O. A10	2636	x144 Lackawanna, N.Y. B2
1646x156	Weirton, W. Va. W6 SparrowsPoint, Md. B2	21	x220 Lackawanna, N.Y. B2	2636	x144 Youngstown Y1 x168 Warren,O. R2
16	Pittsburg, Calif. C11 Steubenville, O. W10	21663	x240 Youngstown Y1	26	x144 Middletown, O. A10
1652x152 1672x156	Cleveland J5	21	x172 Dravosburg, Pa. U5	2638 2638	x144 Steubenville, O. W6 x156 Cleveland J5
1672x168	Middletown, O. A10 Dravosburg, Pa. U5	21683	x172 Gary, Ind. U5	2638	½x150 Butler, Pa. A10
1672x172 1672x172 1672x186	Gary, Ind. U5	21	x240 Pittsburgh J5	26	x120 Gary,Ind. U5 x120 Youngstown Y1
1672x186 1672x220	Youngstown Y1 Lackawanna, N.Y. B2	21902	x180 Cleveland R2 x145 Dravosburg, Pa. U5	2642	x144 Pittsburg, Calif. C11 x144 Sparrows Point, Md. B2
1672x230	IndianaHarbor, Ind. I-2	22under 24:	x144 Youngstown Y1	2642	x156 GraniteCity, Ill. G4
1690x240 1690x240	Cleveland R2 Pittsburgh J5	22	x72 Chicago Y1 x144 Follansbee, W. Va. F4	26	x144 Cleveland R2 x144 IndianaHarbor,Ind. I-2
1690x244 1720x145	Ecorse, Mich. G5 Dravosburg, Pa. U5	22363 2238	x168 Warren, O. R2	2720	x145 Dravosburg, Pa. U5
17 under 24x144	Youngstown Y1	2246	x156 Weirton, W. Va. W6	2733	x132 Dravosburg, Pa. U5
1736x144 1736x168	Follansbee, W. Va. F4 Warren, O. R2	22483 22483		2733	½x156 Weirton, W. Va. W6 x130 Dravosburg, Pa. U5
173\1 ₂ x15(Butler.Pa. A10 GraniteCity,Ill. G4	2248	x156 GraniteCity, Ill. G4	2736	x144 Follansbee, W. Va. F4
17	Weirton, W. Va. W6	224 83 224 83	x168 Middletown, O. A10	2736 2736	x144 SparrowsPoint, Md. B2
17	SparrowsPoint, Md. B2 Pittsburg, Calif. C11	2248: 2250:		2736	x144 Steubenville, O. W10
1752x152	Steubenville, O. W10 Middletown, O. A10	22	x132 Gary, Ind. U5	2736	x168 Warren, O. R2
17	Dravosburg.Pa. U5	22	x160 Youngstown Y1	2738 2738	x144 Middletown, O. A10
1772x172 1772x156	Gary, Ind. U5 Youngstown Y1	2260:	x172 Dravosburg, Pa. U5 x220 Lackawanna, N.Y. B2	2738 2738	x156 GraniteCity,Ill. G4 ½x150 Butler,Pa. A10
1772x220 1772x230	Lackawanna, N.Y. B2 IndianaHarbor, Ind. I-2	2260	x244 Ecorse, Mich. G5	2742 2748	x110 Youngstown Y1
1790x240	Cleveland R2	2274:	x240 Pittsburgh J5	2752	x144 IndianaHarbor,Ind. I-2
1790x240 1790x244	Pittsburgh J5 Ecorse, Mich. G5	22	x145 Dravosburg, Pa. U5	28	x145 Dravosburg,Pa. U5 x132 Dravosburg,Pa. U5
18 20x145 18 under 24x144	Dravosburg, Pa. U5 Youngstown Y1	23under 24 2327	x144 Youngstown Y1	2833 2834	½x156 Weirton, W. Va. W6
1836x144	Follansbee, W. Va. F4	23	x144 Dravosburg, Pa. U5	2834	x144 Youngstown Y1
1836x168 18381gx150	Warren, O. R2 Butler, Pa. A10	2336	x144 Follansbee, W. Va. F4 x144 Gary, Ind. U5	2836	x96 Youngstown Y1 x130 Dravosburg,Pa. U5
15	Weirton, W. Va. W6 GraniteCity, Ill. G4	2336	x168 Warren,O. R2	28	x144 Follansbee, W. Va. F4
1548x160	SparrowsPoint, Md. B2	2342	x132 Dravosburg, Pa. U5	2936	x144 Lackawanna, N.Y. B2 x144 Pittsburg, Calif. C11
1548x169 1352x152	Pittsburg, Calif. C11 Steubenville, O. W10	2342	x156 Weirton, W. Va. W6 x186 Youngstown Y1	2836 2836	x144 SparrowsPoint, Md. B2 x144 Steubenville, O. W10
1572x156	Cleveland J5 Middletown, O. A10	2348	x120 Dravosburg, Pa. U5	28	x168 Warren, O. R2
1572x168 1572x172	Dravosburg, Pa. U5	2348 2348	x144 Steubenville, O. W10	2838	x144 Middletown, O. A10
1872x172 1872x220	Gary, Ind. U5 Lackawanna, N.Y. B2	2348 2348	x156 GraniteCity, Ill. G4	2838 2838	x156 GraniteCity,Ill. G4
15	IndianaHarbor, Ind. I-2	2348	x160 SparrowsPoint, Md. B2	2845	x96 Cleveland R2
15	Youngstown Y1 Cleveland R2	2348	x168 Pittsburg, Calif. C11	2852	x144 IndianaHarbor, Ind. I-2 1/2 X156 Weirton, W. Va. W6
1590x240 1890x244	Pittsburgh J5 Ecorse, Mich. G5	2348 2354		2933 2936 2936	½x156Weirton, W. Va. W6x120Dravosburg, Pa. U5x120Gary, Ind. U5
1920x145	Dravosburg, Pa. U5	2360	x140 Youngstown Y1	2936	x120 Middletown, O. A10
19under 24x144 1936x144 1936x168	Youngstown Y1 Follansbee, W. Va. F4	2360 2372	x180 Cleveland R2 x230 IndianaHarbor,Ind. I-2	2936 2936	x144 Pittsburg, Calif. C11
1936x168 193512x15	Warren, O. R2	2420 24under 24	x145 Dravosburg, Pa. U5	2936 2936	x144 SparrowsPoint, Md. B2
1946x156	Weirton, W. Va., W6	24	x72 Chicago Y1	2938	x144 IndianaHarbor, Ind. I-2
1948x156 1948x160	GraniteCity,Ill. G4 SparrowsPoint,Md. B2	2433 2436	x144 Dravosburg, Pa. U5	29	1/2 x156 Weirton, W. Va. W6
1948x168 1952x152	Pittsburg, Calif. C11 Steubenville, O. W10	2436 2436	x144 Follansbee, W. Va. F4 x144 Gary, Ind. U5	3036	x120 Dravosburg,Pa. U5
1972x168	Middletown, O. A10	2436	x168 Warren, O. R2	3036	x120 Middletown, O. A10
1972x172 1972x172	Dravosburg,Pa. U5 Gary,Ind. U5	2438 2442	x132 Dravosburg.Pa. U5	3036	x144 Pittsburg, Calif. C11
1972x220 1972x230	Lackawanna, N.Y. B2 IndianaHarbor, Ind. I-2	2444 2445	x132 Gary,Ind. U5 x186 Youngstown Y1	3036	x144 SparrowsPoint, Md. B2
1972x240	Youngstown Y1	24	x120 Dravosburg, Pa. U5	3038	x168 Warren,O. R2 x144 IndianaHarbor,Ind. I-2
1990x240 1990x240	Cleveland R2 Pittsburgh J5	2448 2448	x130 Youngstown Y1	3045	x96 Cleveland R2
1990x244 2020x145	Ecorse, Mich. G5 Dravosburg, Pa. U5	2448 2448	x144 Steubenville, O. W10	31	x168 Warren, O. R2
			- Commontanti Gr		warren.o. Rz

FLAT-ROLLED CARBON STEEL

(Code number following mill point indicates producing company, key on page 38)

Hot-Rolled Strip, Coil stock.

	Widths		Widths		Widths	
Thickness	MinMax		Thickness MinMax		Thickness MinMax	
(inches)	(inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Produce
.025312	, ½ 3	Riverdale, Ill. A1	.050 187 211	Warren, O. R2	.052218681	Butler, Pa. A10
.02552030	· · · · § § –3 16	Youngstown U5	.05025011/2-12	Bridgeport, Conn. S15	.083	Atlanta A1
.028203		Sharon, Pa. S3	.05050071/2-8	Riverdale, Ill. A1	.08318710-18	WestLeechburg, Pa. A
.028203	1/8-45	Youngstown U5	.0545008-9	Riverdale, Ill. A1	.0831229991-12	Youngstown U
.028203	35-3%	Youngstown U5	.058	Atlanta A11		Trenton, Mich. M.
.028350,	3-31/4	Riverdale, Ill. A1	.058203532-6	Youngstown U5	.0931606-36 .0955%-3	Atlanta A1
.030350		Riverdale, Ill. A1	.0582031 3-9	WestLeechburg, Pa. A4		WestLeechburg, Pa. A
.034350		Riverdale, III. A1	.0585009-10	Riverdale, Ill. A1	.09518710-19	
.035			.05981251-12	Ecorse, Mich. G5	.10050018-20	Riverdale, Ill. A:
.035~.042		Atlanta A11 Alton,Ill, L1	.059822991-12	Conshohocken.Pa. A3	.10412551/4-12	Fontana, Calif. K
.035203		Sharon, Pa. S3	.062124%-12	Detroit M1	.109 ½-4	Atlanta A1
.035203		Youngstown U5	.0621563-12	. Gary, Ind. U5	.109120½-10	Alton,Ill. L
			.0621872-13	Warren,O. R2	.10918710-20	WestLeechburg, Pa. A
.0352031		WestLeechburg, Pa. A4	.06220313-10	WestLeechburg.Pa. A4	.120 ½-4	Atlanta A1
		Riverdale, Ill. A1	,06250010-12	Riverdale, Ill. A1	.12450020-22	Riverdale, Ill. A
.038375		Riverdale, Ill. A1	.0625	Atlanta A11	.125 ½ -4	Atlanta A1
.040375		Riverdale, Ill. A1	.06450012-14	Riverdale, Ill. A1	.125 1-21/2	Milton, Pa. Be
.042		Atlanta A11	.065	Atlanta A11	.125156% -17	Detroit M:
.042203		Sharon, Pa. S3	.06507234-7	Alton, Ill. L1	,1251875%-2	Houston S
.042203	361-4	Youngstown U5	.06518710-12	WestLeechburg, Pa. A4	.1251875 ¾ -4	KansasCity, Mo. Si
.0422031	3-7	WestLeechburg, Pa. A4	.065203	Youngstown U5	.1252032-12	Fontana, Calif. K.
.044375	,51/2-61/2	Riverdale, Ill. A1	$0.0650 - 0.2299 \cdot 0.0066 \cdot 0.0068 = 0.00650 - 0.0068 = $	Youngstown U5	.12522994-12	Ecorse, Mich. G
.04490821	%-12	Butler, Pa. A10	.06850014-16	Riverdale, Ill. A1	.134 ½-4	Atlanta A1
.045080	2-12	IndianaHarbor, Ind. 12	.072	Atlanta A11	.134 and heavier, ½-12	Alton, Ill. Li
.047203	16-12	Sharon,Pa. S3	.072095%-8	Alton, Ill. L1	.148 ½-4	Atlanta A1
.048187		Warren, O. R2	.07218710-17	WestLeechburg, Pa. A4	.15625	Atlanta Al
048250		Warren, O. R2	.07222998-1-9	Youngstown U5	.165	Atlanta A1
.048375		Riverdale, Ill. A1	.0740776-28	Trenton, Mich. M1	.180 ½ 4	Atlanta A1
.049		Atlanta A11	,0741647-12	IndianaHarbor,Ind. I-2	.1875 ½-4	Atlanta A1
049058		Alton.Ill. L1	.076203%-12	Sharon.Pa. S3	.1875 % -2 1/2	Milton, Pa. Be
.049203		Youngstown U5	.0780926-32	Trenton, Mich. M1	193-2037-31	Youngstown Us
.0492031		WestLeechburg.Pa. A4	.08250016-18	Riverdale, Ill. A1	.20322996 1/8 -12	Fontana, Calif. K
		Trobblecompuig, La. At				



Hot-Rolled Strip, Cut lengths.

Wic			Widths	Max.	
Thickness Min			Thickness MinMax		ANTH D. L. A. D L.
(inches) (incl		Mill Point, Producer	(inches) (inches)	(inches)	Mill Point, Producer
.02552030		Youngstown U5	.0941563-12	216	Gary, Ind. U5 Pittsburgh J5
.028203%-4	至 240	Youngstown U5	.0972112012_12	240	
.0282033.5	3 % 240	Youngstown U5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	240 480	IndianaHarbor, Ind. I-2 Pittsburg, Calif. C11
$.0352033\frac{41}{64}$	315 240	Youngstown U5	.109	720	Torrance, Calif. C11
.042203	4 1/4 240	Youngstown U5	.1121127012-12	300	Pittsburgh J5
.04490508	2 156	Pittsburgh J5	11127 1221011111111111111111111111111111		
.0450872-12	240	IndianaHarbor, Ind. I-2	.125	720	Minnequa, Colo. C10
.0482502-6	300	Warren, O. R2	.125	480	Pittsburg, Calif. C11
.048250over 6-10		Warren, O. R2	.125	720	Torrance, Calif. C11
$.0492034\frac{9}{84}$	5 240	Youngstown U5	.1251875½-1	411	Johnstown, Pa. B2
.050250over 6-11	600	Warren.O. R2	.1271141912-12	360	Pittsburgh J5
.05090567	2 160	Pittsburgh J5	.1420156912-12	360	Pittsburgh J5
.0568063512-1	2 168	Pittsburgh J5	.1570171812-12	480	Pittsburgh J5
,0568-,18683-12	156	Ashland, Ky. A10	.1719186812-12	480	Pittsburgh J5
.0582035	6 240	Youngstown U5	.180	480	Pittsburg, Calif. C11
.0620933-12	120	Gary, Ind. U5	,1869-,23166-12	180	Ashland, Ky. A10
.062250over 6-13	600	Warren, O. R2	.1869 and heavier 12-12	480	Pittsburgh J5
.0636070912-1		Pittsburgh J5	.1875		LosAngeles B3
.065203½3	9 240	Youngstown U5	.1875		SanFrancisco B3
.065022996	8 240	Youngstown U5	.1875 %-2%	• • • •	Seattle B3
.07100821		Pittsburgh J5	.1875	480	Pittsburg, Calif, C11
.0720229981	9 240	Youngstown U5	.1875	720	Minnequa, Colo. C10
.08220971		Pittsburgh J5	1875	720	Torrance, Calif. C11
.083122999_1	12 240	Youngstown U5	.1875	600	Minnequa, Colo. C10
.0881043 16-	12 240	IndianaHarbor,Ind. I-2	$.193203$ $\frac{7}{16}$	240	Youngstown U5



Cold-Rolled Strip, Coil stock

Widths	Widths	Widths
Thickness MinMax.	Thickness MinMax.	Thickness MinMax.
(inches) (inches) Mill Point, Producer	(inches) (inches) Mill Point, Producer	(inches) (inches) Mill Point, Producer
.0010033-18 Youngstown C8	.010125½-22 Sharon,Pa. S3	.0703½-22 Anderson,Ind. G6
.0015004501-2 Worcester, Mass. A7	.010125 over 7-12 Warren, O. R2	.0703
.00150626½ (max.) Clifton, N.J. A14	.010150 over 3½-7 Warren, O. R2	.075083%-21 Dearborn, Mich. D3
.002062	.010187%-3½ Warren,O. R2	.0781½-22 Anderson, Ind. G6
.002068	.01020625%-26 Dover,O. G6	.0781½-26 Dover,O. G6
.002093	.011049½-23 \{ Weirton, W. Va. W6	.082212701 ₁₆ -24 Butler,Pa. A10
.003093	$011311201\frac{3}{13}-24$ Middletown, O. A10	.083100%-16% Dearborn, Mich. D3
.004008501-7 Worcester.Mass. A7	.012	.0938
.004100%-22 Warren,O. T5	.01218758-21½ Riverdale,Ill. A1	.0938½-26 Dover,O. G6
.0041875½-under 4 Riverdale,Ill. A1	.014205083-24 Butler, Pa. A10	.094125¾-21 Detroit D2
	.01420932-24 IndianaHarbor, Ind. I-2	.094125¾-21 NewHaven,Conn. D2
.005062 ³ / ₁₆ -5 Pawtucket,R.I. R3	.015020501-18 NewHaven, Conn. A7	.095140½-14 NewCastle,Pa. B4
.005062	.015095½-12 NewCastle,Pa. B4	.100104%-21½ Weirton, W. Va. W6
.005072¼-36 NewCastle,Pa. E5	.015150501-23 \ \frac{15}{5} \qquad \text{ClevelandA7}	.1001251-16 ½ Dearborn, Mich. D3
.005093 ¹ / ₄ -2 Mattapan, Mass. T6	.01560625%-22 Anderson, Ind. G6	.105109%-20½ Weirton, W. Va. W6
.005187½-12 Bridgeport, Conn. S15	0.016-0.0625	.109
.0051875½-under 5 Riverdale,Ill. A1	.01720931-12 Youngstown Y1	.109
.005250%-12 NewBritain, Conn. S15	.018	.110119 %-191/2 Weirton, W. Va. W6
.005500	.020	.120125 %-18½ Weirton, W. Va. W6
.0061253-27 Wallingford, Conn. W2	.020062	.1251-22 Anderson, Ind., G6
.0061875½-under 6 Riverdale,Ill. A1	.020075½-21 Dearborn, Mich. D3	.1251–22 Anderson, Ind. Go
.0071875½-under 7 Riverdale,Ill. A1	.020095501-2315 NewHaven, Conn. A7	
.008062%-15 Follansbee, W. Va. F4	.022	.126130%-16½ Weirton, W. Va. W6
.008080	.025	.126187%-17 Detroit D2
.008156%-12 Rome, N.Y. R6	.028	.126187¾-17 NewHaven,Conn. D2
.0081875½-under 8 Riverdale, Ill. A1	.032	.131140%-15½ Weirton, W. Va. W6
.010015501-18 Cleveland A7	.035	.1405001½-18 NewCastle,Pa. B4
.010065	.042	.141145
.010093½-22 Detroit D2	.050099%-2315 Weirton, W. Va. W6	.146150
.010093½-22 NewHaven, Conn. D2	.05090821¼-24 Butler, Pa. A10	.151160
.010125%-13½ LosAngeles C1	up to .060up to 6 NewYork W3	1.1611872½-7% Weirton, W. Va. W6

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Galvanized Flat Sheets (Hot Dipped)

Galv. Max. Wie	th.	Galv.	Max. Width	. Iot D. pp	Galv.	Max. Width	
Sheet Max. Len	gth	Sheet	Max. Length	Mill Daint Produces	Sheet Gage	Max. Length (inches)	Mill Point, Producer
Gage (inches	IndianaHarbor, Ind. I-2		(inches) 48x144	Mill Point, Producer AlabamaCity, Ala. R2	24	36x144	Torrance, Calif. C11
\$36x156 \$48x110	Newport, Ky. N9 Torrance, Calif. C11	17	48x144	Newport, Ky. N9 Niles, O. N12		36x156 er 36 to 48x120	Weirton, W. Va. W6 Kokomo, Ind. C16
\$	SparrowsPoint,Md. B2	17	48x144	Pittsburg, Calif. C11	24	38x144	AlabamaCity, Ala. R2
\$60x180 936x156	Ashland, Ky. A10 Indiana Harbor, Ind. I-2	17	48x150 48x156	Torrance, Calif. C11 Canton, O. R2		44x132 48x120	Gary, Ind. U5 AlabamaCity, Ala. R2
936x156	Newport, Ky. N9	17	48 x156	Dravosburg,Pa. U5	24	48x120	Gary, Ind. U5
948x120 948x156	Torrance, Calif. C11 SparrowsPoint, Md. B2		48x156	IndianaHarbor, Ind. I-2 SparrowsPoint, Md. B2	24	48 x120 48 x120	MartinsFerry, O. W10 Newport, Ky. N9
960x180	Ashland, Ky. A10	17	60x160	Gary, Ind. U5	24	48x120	Steubenville, O. W10
10 48x120		18	36x144	Dover, O. R1 Torrance, Calif. C11	24	48x120	Torrance, Calif. C11 Canton.O. R2
1048x120		18	36x150 36x156	Weirton, W. Va. W6	24	48x144	Dravosburg, Pa. U5
1048x144 1048x144	AlabamaCity, Ala. R2 Torrance, Calif. C11		48x120 48x120	MartinsFerry, O. W10 Newport, Ky. N9	24	48x144	IndianaHarbor, Ind. I-2 Niles, O. N12
1048x156	IndianaHarbor, Ind. I-2	18	48x120 48x144	Steubenville, O. W10 AlabamaCity, Ala. R2	24	48x144	Pittsburg, Calif. C11 SparrowsPoint, Md. B2
1048x156 1048x156	Newport, Ky. N9 SparrowsPoint, Md. B2	18	48x144	Canton, O. R2	25	36x144	Dover, O. R1
1050x192	Gary, Ind. U5		48x144 48x144	Kokomo, Ind. C16 Niles, O. N12	25 25	36x144	Dravosburg,Pa. U5 Gary,Ind. U5
1052x144 1060x144	Steubenville, O. W10 Gary, Ind. U5	18	48x144	Pittsburg, Calif. C11	25	36x144	Torrance, Calif. C11
10	Ashland, Ky. A10	18	48x144	Torrance, Calif. C11 Dravosburg, Pa. U5	25	36x156 42x96	Weirton, W. Va. W6 Torrance, Calif. C11
11		18	48x156 48x156	IndianaHarbor, Ind. I-2	25	42x120 42x144	Newport, Ky. N9 Pittsburg, Calif. C11
1148x138	Kokomo, Ind. C16		48x156	SparrowsPoint, Md. B2 Gary, Ind. U5	25	44x132	Gary, Ind. U5
1148x144		19	36x144	Dover, O. R1	25	48x120 48x144	Gary, Ind. U5 Canton, O. R2
1148 x15 6	Dravosburg, Pa. U5	19	36x150	Torrance, Calif. C11 Weirton, W. Va. W6	25	48x144	IndianaHarbor, Ind. I-2
1148x156	IndianaHarbor, Ind. I-2 Newport, Ky. N9	19	48x120	Newport, Ky. N9		48x144	SparrowsPoint, Md. B2 Dover, O. R1
1148x156	SparrowsPoint, Md. B2	19	48x144 48x144	AlabamaCity, Ala. R2 Canton, O. R2	26	36x144	Dravosburg, Pa. U5
1150x192 1160x144	Gary, Ind. U5	19	48 x 144	Niles, O. N12 Pittsburg, Calif. C11	26	36x144	Kokomo, Ind. C16 Niles, O. N12
1160x180	Ashland, Ky. A10	19	48x144	SparrowsPoint, Md. B2	26	36x144 36x144	Torrance, Calif. C11 Weirton, W. Va. W6
1236x156	MartinsFerry, O. W10	19	48x144 48x156	Torrance, Calif. C11 Dravosburg, Pa. U5	26ove	36x156 er 36 to 42x120	Kokomo, Ind. C16
1245x144	AlabamaCity, Ala. R2	19	45x156 60x160	IndianaHarbor.Ind. I-2	26	38x120	MartinsFerry, O. W10 Steubenville, O. W10
1248x144	Pittsburg, Calif. C11			Gary, Ind. U5	26	35x120	AlabamaCity, Ala. R2
1248x156	Torrance, Calif. C11		30x150 36x144	Torrance, Calif. C11 Dover, O. R1		42x96 42x120	Torrance, Calif. C11 Gary, Ind. U5
1248x156	Dravosburg,Pa. U5	20	36x156	Weirton, W. Va. W6 MartinsFerry, O. W10	26	42x120	Newport, Ky. N9
1248x156	IndianaHarbor, Ind. I-2 Newport, Ky. N9	20	48x120	Newport, Ky. N9	26	42x144 48x120	Pittsburg, Calif. C11 Niles, O. N12
1248x156	SparrowsPoint, Md. B2	20	48x120 48x144	Steubenville, O. W10 AlabamaCity, Ala. R2	26	48 x144	Canton, O. R2
1252x144 1260x180	Steubenville, O. W10 Ashland, Ky. A10	20	48 x14 4	Canton, O. R2		48x144	IndianaHarbor, Ind. I-2 SparrowsPoint, Md. B2
1260x192	Gary, Ind. U5	20	48x144	Dravosburg,Pa. U5 Kokomo,Ind. C16		36x144	AlabamaCity, Ala. R2 Dover, O. R1
1336x156		20	48x144	Niles, O. N12	27	36x144	Dravosburg, Pa. U5
1348x144	Pittsburg, Calif. C11	20	48x144	Pittsburg, Calif. C11 SparrowsPoint, Md. B2		36x144	Pittsburg, Calif. C11 SparrowsPoint, Md. B2
13	Canton, O. R2	20	48x144 48x156	Torrance, Calif. C11 Gary, Ind. U5	27	36x144	Torrance, Calif. C11
1348x156	Dravosburg,Pa. U5	20	48x156	IndianaHarbor, Ind. I-2	27	36x156 42x120	Weirton, W. Va. W6 Gary, Ind. U5
1348x156	Newport, Ky. N9		54x132	Gary, Ind. U5	27	42x120	Newport, Ky. N9 IndianaHarbor, Ind. I-2
13	SparrowsPoint, Md. B2	21	30x150 36x144	Torrance.Calif. C11 Dover,O. R1	27	44x144	Canton, O. R2
1360x192	Gary, Ind. U.	21	36x156	Weirton, W. Va. W6 Newport, Ky. N9	28	30x144 36x120	Niles, O. N12 Niles, O. N12
1436x156		21	48x144	Canton, O. R2	28	36x144	AlabamaCity, Ala. R2
1448x144	AlabamaCity, Ala. R2	21	48x144	Dravosburg,Pa. U5 Niles,O. N12	28	36x144	Canton, O. R2 Dover, O. R1
14	Kokomo Ind C16	21	48x144	Pittsburg, Calif. C11	28	36x144	Dravosburg, Pa. U5
11 48X144	Pittsburg, Calif. CII	21	48x144	SparrowsPoint, Md. B2 Torrance, Calif. C11	28	36x144	Kokomo, Ind. C16 Pittsburg, Calif. C11
14		21	48x156	Gary, Ind. U5 Indiana Harbor, Ind. I-2		36x144	SparrowsPoint, Md. B2 Torrance, Calif. C11
1448x156	IndianaHarbor, Ind. I-2	21	54x132	Gary, Ind. U5	28	36x156	Weirton, W. Va. W6
1448x156	SparrowsPoint, Md. BZ	22	30x150	Torrance, Calif., C11	28ov	er 36 to 38x120	Kokomo, Ind. C16 Martins Ferry, O. W10
1450x144	Steubenville, O. W10	22	36x144	Dover, O. R1 Torrance, Calif. C11	28	38x120	Steubenville, O. W10
14	Ashland, Ky. A10	1 22:	36x156	Weirton, W. Va. W6 AlabamaCity, Ala. R2	28	42x120	Gary,Ind. U5 Newport,Ky. N9
14 60x192		22	48x120	AlabamaCity, Ala. R2	28	44x144	IndianaHarbor,Ind. I-2 Niles,O. N12
1548x144	AlabamaCity, Ala. R2	22	48x120 48x120	MartinsFerry, O. W10 Newport, Ky. N9	29	30x144	Torrance, Calif. C11 Niles.O. N12
1548x14-	Niles, O. N12 Pittsburg, Calif. C11	46		Steubenville, O. W10 Torrance, Calif. C11	29	30x144 36x120 36x120	Torrance, Calif. C11
15	Torrance, Calif. C11	22	,48x120 48x144	Canton.O. R2	29	36x144 36x144	AlabamaCity, Ala. R2 Canton, O. R2
1548 x 150	Indiana Harbor Ind I-2	22	48x144	Dravosburg, Pa. U5 Gary, Ind. U5	29		Dover, O. R1 Dravosburg, Pa. U5
15	Newport, Ky. N9 SparrowsPoint, Md. B2	22	48x144	Kokomo, Ind. C16	29	36x144 36x144 36x144	Dravosburg, Pa. U5 Indiana Harbor, Ind. I-2
1554x150	Dravosburg, Pa. U5	22	48×144	Niles, O. N12 Pittsburg, Calif. C11	29	/36x144	MartinsFerry, O. W10
15	Ashland Ky. A10	22	45x144 48x156	SparrowsPoint,Md. B2 IndianaHarbor,Ind. I-2	29	36x144	Pittsburg, Calif. C11 SparrowsPoint, Md. B2
16 36x14	Dover.O. R1		30x150	Torrance, Calif. C11	29	36x144	Steubenville, O. W10 Weirton, W.Va. W6
1636x150	Weirton, W. Va. W6 MartinsFerry, O. W10	23	36x144	Dover, O. R1	29	40x120	Newport, Ky. N9
1648x14:	AlabamaCity, Ala. R2	23	36x144 36x156	Torrance, Calif. C11 Weirton, W. Va. W6	30	30x144	Niles, O. N12 Torrance, Calif. C11
1648x14	Niles O. N12	23	48x120 48x120	Newport, Ky. N9 Torrance, Calif. C11	30	36x120 36x120	Dravosburg, Pa. U5
1648x14- 1648x14-	Fittsburg, Calif. C11 Steubenville, O. W10	23:	48x144	Canton, O. K2	30	36x120 ·	Niles, O. N12 Torrance, Calif. C11
16 48x15	Torrance, Calif. C11	23	48x144 48x144	Dravosburg, Pa. U5 Gary, Ind. U5	30	36x144	AlabamaCity, Ala. R2 Canton, O. R2
1648x15	6 Indiana Harbor Ind I-2	23	48x144	IndianaHarbor, Ind. 1-2	30	36x144	Dover, O. R1 IndianaHarbor, Ind. I-2
1 16	8 Newport, Kv. N9	23	48x144	Niles, O. N12 Pittsburg, Calif. C11	30	36x144	IndianaHarbor, Ind. I-2 Kokomo, Ind. C16
16	6 Dravosburg, Pa. U5	23	48x144	SparrowsPoint,Md. B2	30	36x144	MartinsFerry, O. W10
16	0 Ashland, Ky. A10 0 Gary, Ind. U5	24	30x150 36x144	Torrance, Calif. C11 Dover, O. R1	30	36x144	Pittsburg, Calif. C11 SparrowsPoint, Md. B2
1736x14 1736x15	4 Dover, O. R1	24	36x144 36x144	Gary,Ind. U5 Kokomo,Ind. C16	30	36x144 36x156	Steubenville, O. W10 Weirton, W. Va. W6
17	6 Weirton, W. Va. W6	(42	**************************************	ROKOMO,ING. C16	1 30		

Max. Width (in.) ...42 ...36 ...42 ...36 ...42

Mill Point, Producer

Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5

Galv. Sheet Gage

26... 27... 27... 28...



Galvanized Sheet Coils (Hot Dinned)

,		Guivailiz	eu sile	er, coms	(HOL P	upped)—
	Galv. Max. Sheet Width Gage (in.)	Mill Point, Producer	Galv. Max. Sheet Width Gage (in.)	Mill Point, Producer	Galv. Max. Sheet Width Gage (in.)	Mill Point, Producer
-	1848 1948 2036 2048 2136	Gary,Ind. U5 Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5 Dravosburg,Pa. U5	2148 2236 2248 2336 2348	Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5	2436 2448 2536 2548 2636	Dravosburg,Pa. U5 Gary,Ind. U5 Dravosburg,Pa. U5 Gary,Ind. U5 Dravosburg,Pa. U5



Galvannealed Flat Sheets

GUIV	aillealea	I lat slicet	3		
Galv. Max. Width Sheet Max. Length Gage (inches)	Mill Point, Producer	Galv. Max. Width Sheet Max. Length Gage (inches)	Mill Point, Producer	Galv. Max. Width Sheet Max. Length Gage (inches)	
1048x123	Kokomo, Ind. C16	1950x144	Canton, O. R2	2448x144	Dravosburg, Pa. U5
1148x138	Kokomo, Ind. C16	2048x120	Newport, Ky. N9	2536x144	Dravosburg,Pa. U5
1236x156	Canton, O. R2	2048x144	Dravosburg, Pa. U5	2542x120	Newport, Ky. N9
1248x144	Kokomo, Ind. C16	2048x144	Kokomo, Ind. C16	2548x144	Canton, O. R2
1336x156	Canton, O. R2	2050x144	Canton, O. R2	2636x144	Dravosburg,Pa. U5
1442x120	Newport, Ky. N9	2148x120	Newport, Ky. N9	2636x144	Kokomo, Ind. C16
1448x144	Canton, O. R2	2148x144	Canton, O. R2	26over 36 to 48x120	Kokomo, Ind. C16
1448x144	Kokomo,Ind. C16	2148x144	Dravosburg, Pa. U5	2642x96	Newport, Ky. N9
1548x120	Newport, Ky. N9	2248x120	Newport, Ky. N9	2648x144	Canton, O. R2
1548x144	Canton, O. R2	2248x144	Canton, O. R2	2742x96	Newport, Ky. N9
1648x144	Capton, O. R2	2248x144	Dravosburg,Pa. U5	2748x144	Canton, O. R2
1648x144	Kokomo, Ind. C16	2248x144	Kokomo, Ind. C16	2836x96	Newport, Ky. N9
1648x144	Newport, Ky. N9	2348x120	Newport, Ky. N9	2836x144	Canton, O. R2
1748x144	Newport, Ky. N9	2348x144	Canton, O. R2	2836x144	Kokomo, Ind. C16
1750x144	Canton, O. R2	2348x144	Dravosburg,Pa. U5	28over 36 to 38x120	Kokomo, Ind. C16
1848x120	Newport, Ky. N9	2436x144	Kokomo,Ind. C16	2842x120	Canton, O. R2
1848x144	Kokomo, Ind. C16	24. over 36 to 48x120	Kokomo,Ind. C16	2936x144	Canton, O. R2
1850x144	Canton, O. R2	2448x120	Newport, Ky. N9	3036x120	Canton, O. R2
1948x120	Newport, Ky. N9	2448x144	Canton, O. R2	3036x144	Kokomo, Ind. C16



Hot-Rolled Plates Sheared

	I IOC-I	tolled Plu	tes, sneure	<u>u</u>		
	Width.		Width.		Width.	
Thickness	Max. Length		Thickness Max. Length	-	Thickness Max. Length	
(inches)	(inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer
.180	48 } x480	Johnstown, Pa. B2	3	SparrowsPt.,Md. B2	.23042x550	SparrowsPt.,Md. B2
.180	48 18 x480		ੀ ਜੋ	Ind. Harbor, Ind. I-2	.230	Johnstown, Pa. B2
.180	54x480	Johnstown, Pa. B2	3	Coatesville, Pa. L7	.23048 5 x550	SparrowsPt.,Md. B2 Johnstown.Pa. B2
180		SparrowsPt.,Md. B2 Johnstown,Pa. B2	3	SouthChicago, Ill. U5 Munhall, Pa. U5	.230	SparrowsPt.,Md. B2
.180		SparrowsPt.,Md. B2	16	Ind. Harbor, Ind. I-2	,230	Johnstown, Pa. B2
.180		Johnstown, Pa. B2	16	Johnstown, Pa. B2	.230	SparrowsPt.,Md. B2
.180		SparrowsPt.,Md. B2	18	SparrowsPt.,Md. B2	.230	Johnstown, Pa. B2
.180		Johnstown, Pa. B2	3	Geneva, Utah G1	.230	SparrowsPt., Md. B2
.180		SparrowsPt.,Md. B2 Johnstown.Pa. B2	3	Coatesville, Pa. L7	.230	Johnstown, Pa. B2 SparrowsPt., Md. B2
.180	78x400	SparrowsPt.,Md. B2	38	Munhall, Pa. U5 South Chicago, Ill. U5	230	Johnstown, Pa. B2
	84x360	Johnstown, Pa. B2	3	Ind. Harbor, Ind. I-2	.230	SparrowsPt., Md. B2
	84x360	SparrowsPt.,Md. B2	1684x300	Ind. Harbor, Ind. I-2	.23084x480	Johnstown, Pa. B2
	90x300	SparrowsPt.,Md. B2	1884x360	Johnstown, Pa. B2	.23084x630	SparrowsPt.,Md. B2
.180		Johnstown, Pa. B2	384x360	SparrowsPt.,Md. B2	.23090x480	Johnstown, Pa. B2
.180		Johnstown, Pa. B2	384x360 384x384	Geneva, Utah-G1	.230	SparrowsPt.,Md. B2 Johnstown,Pa. B2
.180		SparrowsPt.,Md. B2 Ashland,Ky. A10	84x600 384x650	Munhall, Pa. U5 Coatesville. Pa. L7	23096x560	SparrowsPt.,Md. B2
.1803125		Cleveland J5	384x650 384x720	SouthChicago, Ill. U5	230102x420	Johnstown, Pa. B2
.180375	54x192	Steubenville, O. W10	\$87x540	Munhall.Pa. U5	.230102x530	SparrowsPt.,Md. B2
.180625	90x720	Pittsburgh J5	388x720	SouthChicago, Ill. U5	.230104x360	Johnstown, Pa. B2
.180 and heav	ier90x480	Pittsburgh J5	390x300	SparrowsPt.,Md. B2	.230108x360	Johnstown, Pa. B2 Sparrows Pt., Md. B2
	24x720	Munhall, Pa. U5	390x360	Johnstown, Pa. B2	.230	Johnstown, Pa. B2
	24x720 30x720	SouthChicago, Ill. U5 Munhall, Pa. U5	3	Geneva, Utah G1 Munhall, Pa. U5	.230	Johnstown, Pa. B2
	30x720	SouthChicago,Ill. U5	3	Coatesville, Pa. L7	.230	SparrowsPt., Md. B2
	36x720	SouthChicago, Ill. U5	36	Harrisburg, Pa. C5	.230120x432	SparrowsPt.,Md. B2
	36x900	Munhall, Pa. U5	1896x300	SparrowsPt., Md. B2	.230	SparrowsPt.,Md. B2
	42x720	SouthChicago, Ill. U5	16	Johnstown, Pa. B2	.230	SparrowsPt.,Md. B2 Ecorse,Mich. G5
10	42x900	Munhall, Pa. U5	396x384	Geneva, Utah G1	¼24x360	Coatesville, Pa. L7
	48x480 48x720	Geneva, Utah G1 Ind. Harbor, Ind. I-2	396x430	Munhall, Pa. U5 Coatesville, Pa. L7	¼24x550	Johnstown, Pa. B2
	48x720	SouthChicago, Ill. U5	96x600 3 102x300	Johnstown.Pa. B2	¼24x550	SparrowsPt.,Md. B2
	48x900	Munhall, Pa. U5	100 100	Munhall Pa. U5	¼24x720	Munhall, Pa. U5
3	48 1x480	Johnstown, Pa. B2	3	Coatesville, Pa. L7	1/424x720	SouthChicago, Ill. U5 Johnstown, Pa. B2
18 · · · · · · · · · · · · · · · · · · ·	48 7 x480	SparrowsPt., Md. B2	3108x430	Munhall, Pa. U5	½30x550 ¼30x550	SparrowsPt.,Md. B2
	54x480	Johnstown, Pa. B2	3108x500	Coatesville, Pa. L7	¼30x720 I	IndianaHarbor, Ind. I-2
	54x480 54x600	SparrowsPt.,Md. B2 Ind.Harbor.Ind. I-2	3114x410	Munhall, Pa. U5 Coatesville, Pa. L7	¼30x720	Munhall, Pa. U5
	54x650	Coatesville.Pa. L7	3	Munhall,Pa. U5	¼30x720	SouthChicago, Ill. U5
	54x720	SouthChicago, Ill. U5	18 120x500	Coatesville, Pa. L7	¼36x390 ¼36x475	Coatesville, Pa. L7 Johnstown, Pa. B2
16	54x900	Munhall, Pa. U5	3	Munhall, Pa. U5	½36x413	SparrowsPt.,Md. B2
	60x480	Johnstown, Pa. B2	3126x500	Coatesville, Pa. L7	½36x600	Geneva, Utah G1
	60x480	SparrowsPt.,Md. B2	18132x300	Munhall, Pa. U5 Coatesville, Pa. L7		ndianaHarbor, Ind. I-2
	60x600	Ind. Harbor, Ind. I-2 Coatesville. Pa. L7	38	Coatesville, Pa. L7	½36x720	SouthChicago, Ill. U5
	60x720	SouthChicago.Ill. U5	138x400 18	Coatesville, Pa. L7	\(\frac{1}{4} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Munhall,Pa, U5 Johnstown,Pa, B2
	60x900	Munhall.Pa. U5	£150x400	Coatesville, Pa. L7	¼	SparrowsPt.,Md. B2
	66x420	Conshohocken, Pa. A3	3	Coatesville, Pa. L7		ndianaHarbor, Ind. 1-2
16	66x480	Johnstown, Pa. B2	a	Coatesville, Pa. L7	¼42x720	SouthChicago, Ill. U5
	66x480	SparrowsPt.,Md. B2	3	Coatesville, Pa. L7 Houston S5	½42x900	Munhall,Pa. U5
***	66x600	Ind. Harbor, Ind. I-2 Coatesville, Pa. L7	3 - ½	Claymont, Del. W16	¼48x660 ¼48x700	Gary, Ind. Ub Coatesville, Pa. L7
10	66x720	SouthChicago, Ill. U5	.188250	Ashland, Ky. A10		ndianaHarbor.Ind. I-2
	66x900	Munhall.Pa. U5	.230	Johnstown, Pa. B2	14	SouthChicago.Ill. U5
1	72x300	Conshohocken, Pa. A3	.23024x550	SparrowsPt.,Md. B2		Munhall, Pa. U5
3	72x300	Youngstown Y1	.23030x550	Johnstown, Pa. B2	1/4	Johnstown, Pa. B2
	72x354	Dravosburg,Pa. U5	.230	SparrowsPt.,Md. B2 Johnstown,Pa. B2	\(\frac{1}{4}\) \(\frac{48}{16}\) \(\frac{1}{8}\) \(\frac{1}{5}\) \(\frac{1}{4}\) \(\frac{54}{16}\) \(\frac{50}{16}\) \(\frac{1}{4}\) \(\frac{54}{16}\) \(\frac{56}{16}\) \(\frac{54}{16}\) \(\frac{54}\) \(\frac{54}{16}\) \(\frac{54}{16}\) \(\frac{54}{16}\) \(\frac{54}\) \(\frac{54}{	
10	72x360 72x420	Fontana, Calif. K1 Johnstown, Pa. B2	.230	SparrowsPt.,Md. B2	¼54x550 ¼54x600	Johnstown, Pa. B2 SparrowsPt., Md. B2
	72x420	Geneva, Utah G1	.230	Johnstown, Pa. B2	½54x640	Gary, Ind. U5
16		GOLOTO, GOLGE GIA			,	

45 January 15, 1951



Hot-Rolled Plates, Sheared

Width,		Width,		Width, Thickness Max. Length			
Thickness Max. Leng (inches) (inches)	Mill Point, Producer	Thickne (inches)		Mill Point, Producer	(inches)	(inches)	Mill Point, Producer
1454x700			15x480	Aliquippa, Pa. J5	5	102x450	Johnstown, Pa. B2
¼54x720	IndianaHarbor.Ind. I-2		27560x180	Ashland, Ky. A10	å	102x480	Gary, Ind. U5
1/4	SouthChicago, Ill. U5		312460x150	Ashland, Ky. A10		102x480 102x540	Munhall, Pa. U5 SparrowsPt., Md. B2
14	Munhall, Pa. U5 Economy, Pa. B14	B	24x360	Coatesville, Pa. L7	100	102x650	Coatesville, Pa. L7
14	Johnstown, Pa. B2			Johnstown, Pa. B2	· · · · · · · · · · · · · · · · · · ·	101x400	Johnstown, Pa. B2
14 60x60t	SparrowsPt.,Md, B2		24x600	SparrowsPt., Md. B2 SouthChicago, Ill. U5	16	10\x400 10\x470	Johnstown, Pa. B2 Gary, Ind. U5
1/4	Gary, Ind. U5 Coatesville, Pa. L7	16		Munhall, Pa. U5	16	108x450	Munhall, Pa. U5
1/4	IndianaHarbor, Ind. I-2	16	30x575	Johnstown, Pa. B2		105x540	SparrowsPtMd. B2
1/4	SouthChicago, III. U5	16	30x600	SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2	· 16	108x650 110x380	Coatesville,Pa. L7 Johnstown,Pa. B2
13	Munhall, Pa. U5 Johnstown, Pa. B2	16	30x720	SouthChicago, Ill. U5	16	114x360	Johnstown, Pa. B2
4	Gary, Ind. U5	10	30x900	Munhall.Pa. U5	16	114x440	Gary.Ind. U5
4	sparrower t., mu. bz			Coatesville, Pa. L7 Johnstown, Pa. B2		114x450 114x480	Coatesville, Pa. L7 Munhall, Pa. U5
1/4		16	36x600	Geneva, Utah G1	1 %	114x520	SparrowsPt.,Md. B2
1/4	SouthChicago, Ill. U5	12		SparrowsPt., Md. B2	12	115x240	Harrisburg, Pa. C5
1/4	Munhall, Pa. U5	10		IndianaHarbor, Ind. 1-2 SouthChicago, Ill. U5	1 19	120x350 120x390	Johnstown.Pa. B2 Gary.Ind. U5
1/4	Youngstown Y1 Johnstown,Pa. B2	(å · ·		Munhall, Pa. U5	1 fc	120x400	Coatesville, Pa. L7
14	Gary, Ind. U5			Johnstown, Pa. B2	6	120x450	Munhall.Pa. U5
34	Coatesville, Pa. L7	16		SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2	10	120x500	SparrowsPt.,Md. B2 Geneva,Utah G1
14) IndianaHarbor, Ind. I-2 SouthChicago, Ill. U5	¥ ::		SouthChicago, Ill. U5		126x350	Gary, Ind. U5
14 72x720	SparrowsPt., Md. B2	12		Munhall, Pa. U5	1	126x380	Coatesville, Pa. L7
1/4		16:		Gary, Ind. U5 Coatesville, Pa. L7	18	126x480	Munhall, Pa. U5 SparrowsPt., Md. B2
3 ₄		16		Indiana Harbor, Ind. I-2	1 16	132x320	Gary, Ind, U5
1/4 78x55	Gary, Ind. U5	12	95X120	SouthChicago, Ill. U5		132x360	Coatesville, Pa. I.7
1 ₄	Geneva, Utah G1	18		Munhall, Pa. U5 Johnstown, Pa. B2		132x460 132x480	SparrowsPt.,Md. B2 Munhall,Pa, U5
14		.5.			86	13\x300	Gary, Ind. U5
1,	0 Munhall, Pa. U5	- Car	54x600	Johnstown, Pa. B2	16	138x340	Coatesville, Pa. L7
1 ₄		1,6		Gary, Ind. U5 Coatesville, Pa. L7		135x140	SparrowsPt.,Md. B2 Munhall,Pa, U5
¼ S0x500	0 IndianaHarbor, Ind. I-2 0 Fontana, Calif. K1	16	54x700	Indiana Harbor, Ind. I-2	18	144x320	Coatesville, Pa. L7
¼×4x48	0 Geneva, Utah G1	10	54x720	SouthChicago, Ill. U5	16	144x400	SparrowsPt.Md. B2
14		18		SparrowsPt.,Md. B2 Munhall,Pa. U5	16	144x450 146x360	Munhall, Pa. U5 SparrowsPt., Md. B2
¼ 84x48 ¼ 84x54		16		Youngstown Y1	1 16	150x310	Coatesville, Pa. L7
1	0 Munhall, Pa. U5	16	58x290	Youngstown Y1	16	150x360	SparrowsPt., Md. B2
½		P		Youngstown Y1 Economy, Pa. B14	100	150x450 156x300	Munhall, Pa. U5 Coatesville, Pa. L7
1/4		16		Johnstown, Pa. B2	16	162X29U	Coatesville.Pa. L7
14 57x55	0 Munhall, Pa. U5	12:	60x640	Gary, Ind. U5		168x280	Coatesville.Pa. L7
4	0 Indianaliarbor, Ind. 1-2	16		Coatesville, Pa. L7 Indiana Harbor, Ind. I-2		174x250 42x1\0	Coatesville, Pa. L7 Ashland, Ky. A10
1/4		4.5	60x720	SouthChicago, Ill. U5		60x150	Ashland, Ky. A10
1/490x45	() Johnstown, Pa. B2	16	60x720	SparrowsPt.,Md. B2	over in %.	72x360	Cleveland J5
1,4		16	60x900	Munhall, Pa. U5 Youngstown Y10	3,	24x360	Coatesville Pa. I.7 Johnstown, Pa. B2
1/4				Johnstown, Pa. B2	36	24x600	SparrowsPt.,Md. B2
¼ 90x70	O Coatesville, Pa. L7	1		Gary, Ind. U5	3,4	24x720	SouthChicago, Ill. U5
1 92x36	0 IndianaHarbor, Ind. I-2	16	66x700	Coatesville, Pa. L7 Indiana Harbor, Ind. I-2	3,	24x900	Munhall, Pa. U5
14	0 IndianaHarbor, Ind. I-2 0 IndianaHarbor, Ind. I-2	1,6		SouthChicago, Ill. U5	3,	30x600	Johnstown, Pa. B2 SparrowsPt., Md. B2
14	Geneva, Utah G1	100 11	66X720	SparrowsPt., Md. B2	1 3	30x720	Ind. Harbor, Ind. 1-2
1/4 96x48	Gary, Ind. U5	16	66x900	Munhall, Pa. U5 Youngstown Y1	3,	30x720	SouthChicago, Ill. U5
14	Johnstown, Pa. B2 Munhall, Pa. U5	16		Youngstown Y1		30x900 36x420	Munhall, Pa. U5 Coatesville, Pa. L7
½96x56	O SparrowsPt., Md. B2	10	.,(ZX200	Youngstown Y1	3,	36x600	Geneva. Utah G1
14		20,		Johnstown, Pa. B2 Gary, Ind. U5	8,	36x600	Johnstown, Pa. B2
14				Cuatesville, Fa. Li	3,	36x600	SparrowsPtMd. B2 Ind.Harbor,Ind. I-2
1 ₁ 102x-	50 Gary.Ind. U5	20		Indiana Harbor, Ind. 1-2	3,	36x720	SouthChicago, Ill. U5
1/4	Munhall, Pa. U5 30 SparrowsPt., Md. B2	1,8		SouthChicago, Ill. U5 SparrowsPt., Md. B2	3k	36x900	Munhall.Pa. U5
14102x6	550 Coatesville, Pa. L7	16		Munhall, Pa. U5	3.	42x600	Johnstown, Pa. B2 SparrowsPt., Md. B2
1/4	360 Johnstown, Pa. B2	Po		Indiana Harbor, Ind. I-2	36	42x720	Ind. Harbor, Ind. I-2
1/4	Harrisburg, Pa. C5 Johnstown, Pa. B2	130		Johnstown, Pa. B2 Gary, Ind. U5		42x720	SouthChicago, Ill. U5
1/4 108xs	tzu Gary, Ind. Ua	100		Geneva, Utah G1		42x900 48x700	Munhall,Pa. U5 Coatesville,Pa. L7
14 108x	Munhall, Pa. U5	10		Coatesville, Pa. Li	3,8	48x720	Gary, Ind. U5
1/4	500 SparrowsPt.,Md. B2 500 Coatesville,Pa. L7	5			3/8	48x720	Ind. Harbor, Ind. 1-2 SouthChicago, Ill. U5
1 ₄ 110x3	330 Johnstown, Pa. B2	50		Munhall, Pa. U5	38	48x720 48x900	Munhall.Pa. U5
14	320 Johnstown, Pa. B2	300	80 x 500	Indiana Harbor, Ind. 1-2	3,8	48 $_{16}$ x720	Johnstown, Pa. B2
1/4	SparrowsPt., Md. B2	100		Indianananou, ind. 1-2	3,,	48 ₁₆ xS40	SparrowsPt.,Md. B2 Ashland,Ky, A10
½114x	Munhall, Pa. U5	16 .	84x500	Johnstown, Pa. B2 Gary, Ind. U5	3%	54x700	Coatesville, Pa. L7
14114x0	600 Coatesville, Pa. L7			Coatesville, Pa. L7	38	54x700	Johnstown, Pa. B2
1/4	Johnstown, Pa. B2 Gary, Ind. U5	1 2		SouthChicago, Ill. U5		54x720	Gary, Ind. U5 Ind. Harbor, Ind. I-2
½120x	384 Geneva, Utah G1	50 .		SparrowsPt., Md. B2		54x720 54x720	SouthChicago, Ill. U5
1/4	432 SparrowsPt.,Md. B2 480 Munhall,Pa. U5	16		Munhall, Pa. U5	3,8	54xS40	SparrowsPt.,Md. B2
1/4	600 Coatesville, Pa. L7	300		IndianaHarbor, Ind. I-2	3,	54x900 60x125	Munhall.Pa. U5 Ashland.Ky. A10
¼126x	320 Gary, Ind. U5	150 .		SouthChicago, Ill. U5	3kg	60x700	Coatesville.Pa. L7
1/4		7 7 .	90x480	Geneva, Utah G1 Johnstown, Pa. B2	3,	60x700	Johnstown, Pa. B2
1 ₄	550 Coatesville, Pa. L7	10		Gary, Ind. U5	3/5	60x720	Gary.Ind. U5 Ind.Harbor,Ind. I-2
1/4	300 Gary, Ind. U5 360 Sparrows Pt., Md. B2	13 .		SparrowsFt., Md. 62	3,	60x720	SouthChicago.Ill. U5
1/4	350 SparrowsPt.,Md. B2 450 Munhall,Pa. U5	1 ,0, .	90x700	Munhall, Pa. U5	3,	60x840	SparrowsPt., Md. B2
14	550 Coatesville, Pa. L7	50 .		Indiana Harbor, Ind. I-2	d	60x900	Munhall.Pa. U5 Ind. Harbor, Ind. I-2
¼	450 Munhall, Pa. U5	Pa .	94x360	IndianaHarbor, Ind. 1-2	3,	66x700	Coatesville, Pa. L7
14144x	440 Coatesville, Pa. L7	100 .	96x420	Fontana, Calif. K1	a	66x700	Johnstown, Pa. B2
14144x	450 Munhall, Pa. U5	5.	96x420	Geneva, Utan Gi	3%	66x720	Gary.Ind. U5 SouthChicago.Ill. U5
1/4	400 Coatesville, Pa. L7 400 Coatesville, Pa. L7	16 .	96x490	Johnstown, Pa. B2 Gary, Ind. U5	3,	66x540	SparrowsPt., Md. B2
½162x	390 Coatesville, Pa. L7	200		Munhall,Pa. U5	3/8	66x900	Munhall, Pa. U5
½168x	370 Coatesville, Pa. L7	100	96x660	SparrowsPt.,Md. B2	38	72x612	Ind. Harbor, Ind. I-2 Johnstown, Pa. B2
14-1/2	Conshohocken, Pa. A3Conshohocken, Pa. A3	16 .	96x700	Coatesville, Pa. L7 Geneva, Utah G1		72x700	Coatesville, Pa. L7
70	The state of the s	, 16 .					



Hot-Rolled Plates, Sheared

Thickness	Width, Max. Lengt	h	Thickness	Width, Max. Lengt	la.	Thickness	Width,	
(inches)	(inches)	Mill Point, Producer	(inches)	(inches)	Mill Point, Producer	(inches)	Max. Lengtl (inches)	h Mill Point, Producer
	72x720	Gary, Ind. U5	78		Geneva, Utah G1		120x640	
3/2	72x720	SouthChicago, Ill. U5	18	36x600	Johnstown, Pa. B2	18	121x384	Geneva, Utah G1
3/8	72x840	SparrowsPt., Md. B2 Munhall, Pa. U5		36x600	SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2		126x480 126x520	Gary, Ind. U5 Coatesville, Pa. L7
	76x540	Ind. Harbor, Ind. I-2	16	36x720	SouthChicago, Ill. U5	18	126x520	Munhall, Pa. U5
	78x650	Johnstown, Pa. B2 Coatesville, Pa. L7	18	,36x900	Munhall, Pa. U5	7	126x620	SparrowsPt.,Md. B2
	78x720	Gary, Ind. U5	1 <u>6</u>	$\dots 42x650 \\ \dots 42x650$	Johnstown, Pa. B2 Sparrows Point, Md. B2	16 · · · · · · · · · · · · · · · · · · ·	132x400 132x480	Gary, Ind. U5 Munhall, Pa. U5
3,	78x720	SouthChicago, Ill. U5	18	42x720	IndianaHarbor, Ind. I-2	18	132x500	Coatesville, Pa. L7
	78x840	SparrowsPt.,Md. B2 Munhall,Pa. U5		42x720	SouthChicago, Ill. U5 Munhall, Pa. U5	18	132x560	SparrowsPt., Md. B2
3,	80x500	Ind. Harbor, Ind. I-2	16	42x900	IndianaHarbor,Ind. I-2	16	138x400	Gary, Ind. U5 Coatesville, Pa. L7
	84x500	Ind. Harbor, Ind. I-2	16	48x720	Gary, Ind. U5	7,	138x480	Munhall, Pa. U5
	84x600 84x700	Johnstown,Pa. B2 Coatesville,Pa. L7	77	48x720 48x800	SouthChicago, Ill. U5 Coatesville, Pa. L7	178	138x560	SparrowsPt.,Md. B2 Gary,Ind. U5
38	84x720	Gary, Ind. U5	16 · · · · · · · · · · · · · · · · · · ·	48x900	Munhall, Pa. U5	7.	144x360	Coatesville, Pa. L7
	84x720	SouthChicago, Ill. U5 Munhall, Pa. U5	16	48 1 x74		16	144x480	Munhall,Pa. U5
	84x840	SparrowsPt.,Md. B2		48 1 X84	0 SparrowsPt.,Md. B2 IndianaHarbor,lnd. I-2		144x540 146x480	SparrowsPt.,Md. B2 SparrowsPt.,Md. B2
	87x780	Munhall, Pa. U5	77K	54x720	Gary, Ind. U5	17	150x360	SparrowsPt.,Md. B2
3,	88x450 88x720	Ind. Harbor, Ind. I-2 South Chicago, Ill. U5	18	54x720	SouthChicago, Ill. U5	16	150X440	Coatesville,Pa. L7
35	90x550	Johnstown, Pa. B2	16	,54x730 ,54x800	Johnstown, Pa. B2 Coatesville, Pa. L7	7	150x480 156x420	Munhall, Pa. U5 Coatesville, Pa. L7
3/S	90x600	Geneva, Utah G1	16	54x840	SparrowsPoint, Md. B2	170	.,162x400	Coatesville,Pa. L7
	90x700	Coatesville, Pa. L7 Gary, Ind. U5	78	54x900	Munhall, Pa. U5	\vec{V}a	168x380	Coatesville, Pa. L7 Coatesville, Pa. L7
3,	90x720	Munhall.Pa. U5	78 · · · · · · · · · · · · · · · · · · ·	60x636	IndianaHarbor, Ind. I-2 Gary, Ind. U5	16	174x360 180x340	Coatesville, Pa. L7
	90x840	SparrowsPt.,Md. B2 Ind.Harbor,Ind. I-2	16	60x720	Johnstown,Pa. B2	1	186X3UU	Coatesville, Pa. L7
3,8	94x360	Ind. Harbor, Ind. 1-2	27	60x720	SouthChicago, Ill. U5 Coatesville, Pa. L7	178	192x260 195x250	Coatesville,Pa. L7
	96x360	Ind. Harbor, Ind. I-2	16 · · · · · · · · · · · · · · · · · · ·	60x840	SparrowsPoint, Md. B2	7, - 5/2	115x360	Harrisburg, Pa. C5
	96x480	Fontana, Calif. K1 Geneva, Utah G1	YE	60x900	Munhall, Pa. U5	1/2	24x360	Coatesville, Pa. Li
35	96x520	Johnstown, Pa. B2	Y	66x576	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	1/2	24x450 24x600	Johnstown, Pa. B2 SparrowsPoint, Md. B2
3,	96x700	Coatesville, Pa. L7	16 · · · · · · · · · · · · · · · · · · ·	66x720	Gary, Ind. U5	1/6	,24x720	SouthChicago, Ill. U5
3,4	96x720 96x720	Gary, Ind. U5 Munhall, Pa. U5	1/8	66x720	SouthChicago, Ill. U5	1/0	24x900	Munhall,Pa. U5 Johnstown,Pa. B2
3,	96x840	SparrowsPt., Md. B2		66x800	Coatesville, Pa. L7 SparrowsPoint, Md. B2	1/2	30x500 30x600	SparrowsPoint, Md. B2
	102x420	Geneva, Utah G1 Johnstown, Pa. B2	7	66x900	Munhall, Pa. U5	16	30x720 .	IndianaHarbor, Ind. I-2
	102x500		18	72x540	IndianaHarbor, Ind. I-2	1/2	30x720	SouthChicago, Ill. U5 Munhall, Pa. U5
38	102x720	Gary, Ind. U5	16	72x650 72x720	Johnstown, Pa. B2 Gary, Ind. U5	1/2	30x900 36x420	Coatesville, Pa. L7
38	102x720	Munhall, Pa. U5	7	72x720	SouthChicago, Ill. U5	14	36x575	Johnstown, Pa. B2
	102x720	SparrowsPt.,Md. B2 Johnstown,Pa, B2	7	72x800	Coatesville, Pa. L7	1/2	36x600	Geneva, Utah G1 SparrowsPoint, Md. B2
	108x384	Geneva, Utah G1		72x840 72x900	SparrowsPoint, Md. B2 Munhall, Pa. U5	1/2	36x720 .	IndianaHarbor,Ind. I-2
36	108x475	Johnstown, Pa. B2 Coatesville, Pa. L7	7	76x540	IndianaHarbor,Ind. I-2	1.,	36x720	SouthChicago,Ill. U5 Munhall,Pa. U5
3,4	108x660	Gary, Ind. U5	TE	78x600	Johnstown, Pa. B2	16	36x900 42x648	IndianaHarbor,Ind. I-2
3,	108x660	Munhall, Pa. U5	Ye	78x720	Gary, Ind. U5 South Chicago, Ill. U5	1	42x650	Johnstown, Pa. B2
	108x700	SparrowsPt.,Md. B2 Johnstown,Pa. B2	7	78x800	Coatesville, Pa. L7	1/2 ,	42x650 42x720	SparrowsPoint, Md. B2 SouthChicago, Ill. U5
36	114x430	Johnstown,Pa. B2	18	78x840 78x900	SparrowsPoint, Md. B2 Munhall, Pa. U5	1/2	42x900	Munhall, Pa. U5
3/4.	114x540	Coatesville, Pa. L7	70	80x500	IndianaHarbor, Ind. I-2	1/2	48x600	IndianaHarbor, Ind. 1-2
3	114x600	Gary, Ind. U5 Munhall, Pa. U5	Va		IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	1,,	48x720 48x720	Gary, Ind. U5 South Chicago, Ill. U5
3/4	114x660	SparrowsPt., Md. B2	16 · · · · · · · · · · · · · · · · · · ·	84x600 84x700	SouthChicago, Ill. U5	1/2	48 x 800	Coatesville, Pa. L7
3/8	120x420	Harrisburg, Pa. C5 Johnstown, Pa. B2	78	84x720	Gary, Ind. U5	1/2	48x900 48 ₁₆ x746	Munhall, Pa. U5 Johnstown, Pa. B2
3/8	120x480	Munhall.Pa. U5		84x800 84x840	Coatesville, Pa. L7 Munhall, Pa. U5	1/2	48 x840	0 SparrowsPt.,Md. B2
3,0	120x520	Coatesville,Pa. L7 Gary,Ind. U5	7	84x840	SparrowsPoint, Md. B2		54x600	Ind.Harbor,Ind. I-2 Gary,Ind. U5
34	120x620	SparrowsPt.,Md. B2	18	87x780	Munhall, Pa. U5	1/2	54x720 54x720	SouthChicago, Ill. U5
3,	121x384 126x480	Geneva, Utah G1	76 · · · · · · · · · · · · · · · · · · ·	88 x 450	IndianaHarbor, Ind. I-2 SouthChicago, Ill. U5	1/2	54x730	Johnstown, Pa. B2
3/8	126x480	Gary, Ind. U5 Munhall, Pa. U5	7	90x550	Johnstown, Pa. B2		54x800 54x840	Coatesville, Pa. L7 SparrowsPoint, Md. B2
38	126x500	Coatesville, Pa. L7	18	90x600 90x720	Geneva, Utah G1 Gary, Ind. U5	1/2	54x900	Munhall,Pa. U5
98	126x600 132x400	SparrowsPt.,Md. B2 Gary,Ind. U5	7	90x720	Munhall,Pa. U5	1/2	60x600 I	IndianaHarbor,Ind. I-2 Gary,Ind. U5
3,	132x460	Coatesville, Pa. L7	7	90x800	Coatesville, Pa. L7	1/2	60x720	Johnstown, Pa. B2
3/4	132x480	Munhall,Pa. U5			SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2	1/2	60x720	SouthChicago, Ill. U5
3,	132x580 138x330	SparrowsPt.,Md. B2 Gary,Ind. U5	7	94x360	IndianaHarbor, Ind. I-2	1/2	60x800	Coatesville,Pa. L7 SparrowsPoint,Md. B2
3/4	138x440	Coatesville, Pa. L7	16	96x360 96x480	IndianaHarbor, Ind. I-2 Fontana, Calif. K1	1/2	,60x900	Munhall,Pa. U5
3,	138x480 138x550	Munhall, Pa. U5 SparrowsPt., Md. B2	16 · · · · · · · · · · · · · · · · · · ·	96x480	Geneva, Utah G1	1/2	66x540 3	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2
3/8	144x300	Gary,Ind. U5	16	96x520	Johnstown, Pa. B2	1/2	66x720	Gary, Ind. U5
	144x400 144x480	Coatesville, Pa. L7 Munhall, Pa. U5	Ž	96x720	Gary, Ind. U5 Munhall, Pa. U5	1/2	66x720	SouthChicago, Ill. U5
	144x520	SparrowsPt.,Md. B2	3	96x800	Coatesville, Pa. L7			Coatesville, Pa. L7 SparrowsPoint, Md. B2
8	146x480	SparrowsPt.,Md. B2	1,6	96x840	SparrowsPoint, Md. B2	1/2	66x900	Munhall, Pa. U5
3/.	150x360	Coatesville,Pa. L7 SparrowsPt.,Md. B2	16 · · · · · · · · · · · · · · · · · · ·	102x420 102x500	Geneva, Utah G1 Johnstown, Pa. B2	1/2	72x540]	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2
34	150x480	Munhall.Pa. U5	7.	102x720	Gary, Ind. U5	1/2	72x720	Gary, Ind. U5
3/4	156x350	Coatesville, Pa. L7	16	102x720 102x800	Munnan, Pa. Ub	1/2		SouthChicago, Ill. U5
3/8	162x340 168x320	Coatesville, Pa. L7 Coatesville, Pa. L7	16 · · · · · · · · · · · · · · · · · · ·	102x840	SparrowsPt.,Md. B2		72x840	Coatesville, Pa. L7 SparrowsPoint, Md. B2
3 ₈	174x300	Coatesville, Pa. L7	16	104x475	Johnstown,Pa. B2	1/2	72x900	Munhall, Pa. U5
	180x280 186x260	Coatesville, Pa. L7 Coatesville, Pa. L7	16	108x384 108x475	Geneva, Utah G1 Johnstown, Pa. B2	1/2	76x540 I	IndianaHarbor,Ind. I-2 Johnstown,Pa, B2
3,	192x250	Coatesville, Pa. L7	7	108x660	Gary, Ind. U5	1/2	78x700	SouthChicago, Ill. U5
38	195x250	Coatesville, Pa. L7	18	,.108x700	Coatesville, Pa. L7	1/2	78x720	Gary, Ind. 115
3	72x300	Economy,Pa. B14 Coatesville,Pa. L7	16 16	108x720	Munhall, Pa. U5 SparrowsPt., Md: B2	1/2		Coatesville,Pa, L7 SparrowsPoint,Md, B2
10	24x600	Johnstown, Pa. B2		110x450	Johnstown, Pa. B2	1/2	78x900	Munhall, Pa. U5
10	24x600 24x720	SparrowsPoint, Md. B2 SouthChicago, Ill. U5		114x430		1/2		IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2
37	24x900	Munhall, Pa. U5	7	114x600	Gary, Ind. U5	1/2	84x590	Johnstown, Pa. B2
70	30x600	Johnstown, Pa. B2	175	114x660	Munhall, Pa. U5	1/2	84x648 84x720	SouthChicago, Ill. U5
16	30x600 30x720	SparrowsPoint,Md. B2 IndianaHarbor,Ind. I-2		114x680 120x420	SparrowsPt.,Md. B2 Johnstown,Pa. B2	1/2	84x800	Gary,Ind. U5 Coatesville,Pa. L7
76	30x720	SouthChicago, Ill. U5		120x520	Gary, Ind. U5	1/2	84x840	Munhall,Pa. U5
Y	30x900	Munhall, Pa. U5 Coatesville, Pa. L7	7 16 16 16	120x540 120x600	Coatesville, Pa. L7 Munhall, Pa. U5	1/2	84x840	SparrowsPoint,Md. B2 Munhall,Pa. U5
16	36x420	Coatesville, La. Li	16				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Maintail, La, UU

Hot-Rolled Plates, Sheared_____

Width,	Width,		Width,
Thickness Max. Length	Thickness Max. Length (inches) (inches) Mill I	oint, Producer (inches)	Max. Length (inches) Mill Point, Producer
(inches) (inches) Mill Point, Producer 1/2			150x480 • Munhall.Pa. U5
1/6 S8x630 SouthChicago, III. U5	16		156x450 Coatesville, Pa. L7
1/2	1854x900 Mi	nhall,Pa. U5 🖟	162x450 Coatesville,Pa. L7 168x400 Coatesville,Pa. L7
1/2 90x720 Munhall,Pa. U5	16	rbor,Ind. 1-2	174x375 Coatesville, Pa. L7
1/2			180x360 Coatesville, Pa. L7 186x325 Coatesville, Pa. L7
1/2	$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$	stown,Pa. B2	192x275 Coatesville, Pa. L7
94x360 IndianaHarbor, Ind. I-2 1/296x360 IndianaHarbor, Ind. I-2	60x800 Coat 60x840 Sparrows	Point, Md. B2 5	195x250 Coatesville,Pa. L7 24x360 Coatesville,Pa. L7
1/2 Fontana, Calif. Kl	9	ınhall, Pa. U5 %	24x400 Johnstown,Pa. B2
1/2			24x600 SparrowsPoint,Md. B2 24x720 SouthChicago,Ill. U5
1/2	16	Gary,Ind. U5 %	24x900 Munhall,Pa. U5
1/296x800 Coatesville, Pa. L7	9	esville, Pa. L7 %	30x600 SparrowsPoint, Md. B2
1/2	16	Point, Md. B2 %	30x684 IndianaHarbor,Ind. I-2 30x720 SouthChicago,Ill. U5
1/2 Johnstown, Pa. B2		rbor, Ind. I-2 % ·····	30x900 Munhall, Pa. U5
1/2	18	stown,Pa. B2 % nicago,Ill. U5 %	36x420 Coatesville,Pa. L7 36x575 Johnstown,Pa. B2
1/2	2	Gary, Ind. U5 %	36x600 Geneva, Utah G1
102x840 SparrowsPt., Md. B2 12 104x530 Johnstown, Pa. B2	%	esville,Pa. L7	36x600 SparrowsPoint,Md. B2 36x684 IndianaHarbor,Ind. I-2
108x480 Geneva, Utah G1	1 2	nhall,Pa. U5 5 ·····	36x720 SouthChicago, Ill. U5
12 108x530 Johnstown,Pa. B2 12 108x700 Coatesville,Pa. L7	15	rbor,Ind. I-2 % ······· stown,Pa. B2 % ······	36x900 Munhall,Pa. U5 42x600 IndianaHarbor,Ind. I-2
1,		nicago, Ill. U5 5% ······	42x650 Johnstown, Pa. B2
12	9	Gary, Ind. U5 %	42x650 SparrowsPoint,Md. B2 42x720 SouthChicago,Ill. U5
1,	16	Point, Md. B2 1/8 ······	42x900 Munhall,Pa. U5
1½	%		48x600 IndianaHarbor,Ind. I-2 48x720 Gary,Ind. U5
½114x540 Coatesville, Pa. L7	1884x480 IndianaH	rbor, Ind. I-2 %	48x720 SouthChicago, III. U5
16	ye84x576 SouthC	nicago, Ill. U5 5stown, Pa. B2 5	48x800 Coatesville,Pa. L7 48x900 Munhall,Pa. U5
1.,	\$	Cory Ind 175 %	48 x710 Johnstown Pa. B2
1½	984x800 Coat	esville,Pa. L7 % · · · · · · · · · · · · · · · · · ·	48 15 x840 SparrowsPt., Md. B254x600 Ind. Harbor, Ind. I-2
1/2	384x840 Sparrows	Point, Md. B2 58 ······	54x700 Johnstown, Pa. B2
120x580 Gary,Ind. U5 12120x600 Munhall,Pa. U5	987x780 Mi	rhor Ind I-2 % ·····	54x720 Gary,Ind. U5 54x720 SouthChicago,Ill. U5
1 ₂ 120x720 SparrowsPt.,Md. B2	9 John	stown,Pa. B2 %	54x800 Coatesville, Pa. L7
1/2	90x720 90x720 Mi	inhall Pa II5 %	54x900 Munhall.Pa. U5
1½	90x800 Coat	esville,Pa. L7 %	60x600 IndianaHarbor, Ind. I-2 60x600 SouthChicago, Ill. U5
16		rbor Ind T 2 8	60x690 Johnstown, Pa. B2
12	1 994x360 IndianaH	rbor, Ind. I-2 78	60x720 Gary, Ind. U5 60x800 Coatesville, Pa. L7
1 ₂	996x360 IndianaH	and Colle Wil 18	60x840 SparrowsPoint, Md. B2
1½	18	stown, Pa. B2 78	60x900 Munhall,Pa. U5 66x312 Conshohocken,Pa. A3
1/2	96x600 Ge	Conv. Ind II5 %	66x540 IndianaHarbor, Ind. I-2
12	2	inhall, Pa. U5 $\frac{1}{5}$	66x650 Johnstown,Pa. B2 66x660 SouthChicago,Ill. U5
1/2144x400 Gary, Ind. U5		Deina 352 DO %	66x720 Gary, Ind. U5
12	9	neva, Utah G1 78	66x800 Coatesville, Pa. L7 66x840 SparrowsPoint, Md. B2
1½ 144x650 SparrowsPt.,Md. B2 1½ 146x480 SparrowsPt.,Md. B2	$\begin{bmatrix} 0 & 102 \times 500 \\ 16 & 102 \times 720 \end{bmatrix}$ John	Gary.Ind. U5	66x900 Munhall, Pa. U5
½150x360 SparrowsPt.,Md. B2	2	inhall, Pa. U5 18	72x300 Conshohocken,Pa. A3 72x540 IndianaHarbor,Ind. I-2
1/2		esville,Pa. L7 58 58 58 58	72x600 SouthChicago, Ill. U5
1/2	8 104x475 John	stown, Pa. B2 5%	72x720 Gary, Ind. U5
12	9	neva, Utah G1 78	72x800 Coatesville, Pa. L7 72x840 SparrowsPoint, Md. B2
½	%	SVIIIE, L a. 131 5%	72x900 Munhall,Pa. U5
½180x360 Coatesville, Pa. L7 12186x325 Coatesville, Pa. L7	108x720 18108x720 Mu	inhall,Pa. U5 5%	
1 ₂	16	wsPt.,Md. B2 5%	78x600 Johnstown,Pa. B2
195x250 Coatesville, Fa. Li	9114x420 Get	neva, Utah G1 6%	78x720 Gary,Ind. U5 78x800 Coatesville,Pa. L7
24x425 Johnstown, Pa. B2	1 Jan John John	stown, Fa. B2 %	78x840 SparrowsPoint, Md. B2
SouthChicago, Ill, U5	9	Gary, Ind. U5 %	78x900 Munhall,Pa. U5 80x480 IndianaHarbor,Ind. I-2
18	114x720 Mi	inhall,Pa. U5 %	84x480 IndianaHarbor, Ind. I-2
\$		neva, Utah G1 5%	84x515 SouthChicago,Ill. U5 84x575 Johnstown,Pa. B2
30x720 IndianaHarbor,Ind. I-2		stown, Pa. B2 58	84x600 Geneva, Utah G1
1 16	2	Gary, Ind. U5 1%	84x800 Coatesville.Pa. L7
15	120x720 Mt 120x720 Sparro		84x840 Munhall,Pa. U5 84x840 SparrowsPoint,Md. B2
$\frac{1}{2\pi}$	121x384 Gen	eva, Utah G1 %	87x780 Munhall.Pa. U5
36x600 SparrowsPoint,Md. B2	$egin{array}{cccccccccccccccccccccccccccccccccccc$	esville, Pa. L7 5%	88x360 IndianaHarbor, Ind. I-2 90x525 Johnstown, Pa. B2
SouthChicago, Ill. U5		nhall,Pa. U5 5%	90x550 Geneva, Utah G1
16	126x720 Sparrov 16126x720 Sparrov 18132x480	Gary.Ind. U5 %	90x720 Gary,Ind. U5 90x720 Munhall,Pa. U5
1 2	%	sville,Pa. L7 5%	90x800 Coatesville.Pa. L7
southChicago, Ill. U5	9	vsPt.,Md. B2 5%	90x840 SparrowsPoint,Md. B2 92x360 IndianaHarbor,Ind. I-2
10 000 35 1 31 30 550		Gary, Ind. U5 %	94x360 IndianaHarbor, Ind. I-2
16	138x540 Coate	nhall, Pa. U5 %	96x360 IndianaHarbor,Ind. I-2 96x480 Fontana,Calif. K1
\$\frac{1}{16}\$	§	vsPt.,Md. B2 %	96x480 Geneva, Utah G1
¶ 9	Mu 16	nhall,Pa. U5 %	96x720 Gary, Ind. U5
15	144x500 Coate	sville,Pa. L7 %	96x720 Munhall, Pa. U5 96x800 Coatesville, Pa. L7
16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	150	vsPt.,Md. B2 5/8	96x840 SparrowsPoint, Md. B2
9	150x360 Sparrov 16150x480 Coate		102x475 Johnstown,Pa. B2 102x480 Geneva, Utah G1



₩ Hot-Rolled Plates, Sheared

Width,	1	Width,		Width,	
Thickness Max. Length (inches) (inches)	Mill Point, Producer	Thickness Max. Length (inches) (inches)	Mill Point, Producer	Thickness Max. Leng (inches) (inches)	
5%	Gary, Ind. U5	1878x490	SouthChicago, Ill. U5	3448 x 540	IndianaHarbor, Ind. I-2
5%102x720 5%102x800	Munhall, Pa. U5 Coatesville, Pa. L7	16	Johnstown, Pa. B2 Geneva, Utah G1	%	
5%	SparrowsPt.,Md. B2	11	Gary.Ind. U5	¾48x800	Coatesville, Pa. L7
5%	Johnstown,Pa. B2 Johnstown,Pa. B2	78x800	Coatesville,Pa. L7 Munhall,Pa, U5	%	Munhall, Pa. U5
5/4	Geneva, Utah G1	1t	SparrowsPoint,Md. B2	%48 - x8	40 SparrowsPt.,Md. B2
5%	Coatesville, Pa. L7 Gary, Ind. U5	1184x458 1284x550	SouthChicago, Ill. U5 Johnstown, Pa. B2	%54x540 %54x650	
5%	Gary, Ind. U5 Munhall, Pa. U5 Sparrows Pt., Md. B2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Geneva, Utah G1	¾54x720	Gary, Ind. U5
5%	Johnstown, Pa. B2	$\frac{11}{16}$	Gary,Ind. U5 Munhall,Pa. U5	¾54x720	Coatesville, Pa. L7
%	Geneva, Utah G1 Johnstown, Pa. B2	1 1	Coatesville, Pa. L7 Sparrows Point, Md. B2	¾54x840	SparrowsPoint,Md. B2
%114x540	Coatesville, Pa. L7	1 187x750	Munhall,Pa. U5	%	SouthChicago, Ill. U5
%	Gary, Ind. U5 Munhall, Pa. U5	11	Geneva, Utah G1 Johnstown, Pa. B2	%	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2
5%	SparrowsPt.,Md. B2 Geneva,Utah G1	1 190x720	Gary, Ind. U5	3/460x720	Gary, Ind. U5
%	Johnstown, Pa. B2	10	Munhall,Pa. U5 Coatesville,Pa.L7	%	Coatesville, Pa. L7 SparrowsPoint, Md. B2
%120x540	Coatesville, Pa. L7 Gary, Ind. U5	16	SparrowsPoint,Md. B2 Fontana,Calif. K1	34	Munhall, Pa. U5
5%	Munhall,Pa. U5	1 16	Johnstown,Pa. B2	¾66x276 ¾66x540	IndianaHarbor, Ind. I-2
%120x720 %121x360	SparrowsPt.,Md. B2 Geneva,Utah G1	11	Geneva, Utah G1 Gary, Ind. U5	%	
%126x540	Coateswille, Pa. L7 Gary, Ind. U5		Munhall, Pa. U5	3/4	Gary, Ind. U5
%126x540 %126x660	Munhall, Pa. U5	11	Coatesville, Pa. L7 SparrowsPoint, Md. B2	%	
5/8	SparrowsPt.,Md. B2 Gary,Ind. U5	16	Geneva, Utah G1	⅓66x840	SparrowsPoint, Md. B2
%132x540	Coatesville, Pa. L7	ii102x720	Gary, Ind. U5	3/4	IndianaHarbor, Ind. I-2
%	Munhall, Pa. U5 SparrowsPt., Md. B2	102x720	Munhall,Pa. U5	%	SouthChicago, Ill. U5
%	Gary, Ind. U5		SparrowsPt.,Md. B2	%72x720) Gary, Ind. U5
%	Coatesville,Pa. L7 Munhall,Pa.U5	19	Johnstown, Pa. B2	34	Coatesville, Pa. L7
%	SparrowsPt.,Md. B2 Gary,Ind. U5	18108x440	Johnstown, Pa. Bz	34	SparrowsPoint, Md. B2
5%144x500	Coatesville, Pa. L7	108x720	Gary, Ind. U5	%	2 SouthChicago, Ill. U5
%	Munhall,Pa. U5 SparrowsPt.,Md. B2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Munhall, Pa. U5	%	Johnstown, Pa. B2 Geneva, Utah G1
%146x480	SparrowsPt., Md. B2	110x425	Johnstown, Pa. B2	34	Gary, Ind. U5
%	Gary, Ind. U5 SparrowsPt., Md. B2	114x400 114x540	Johnstown, Pa. B2	%	Munhall, Pa. U5 Coatesville, Pa. L7
%	Coatesville, Pa. L7	ii	Gary, Ind. U5	34) SparrowsPoint,Md. B2
%	Munhall, Pa. U5 Coatesville, Pa. L7	ii	Munhall, Pa. U5 SparrowsPt., Md. B2	%80x444	IndianaHarbor, Ind. I-2
%	Coatesville, Pa. L7 Coatesville, Pa. L7	120×400	Johnstown, Pa. B2	%	SouthChicago, III. US
%174x375	Coatesville, Pa. L7	114x/26 120x400 13) Gary, Ind. Up	%84x550	Johnstown, Pa. B2
%180x360 %186x325	Coatesville, Pa. L7 Coatesville, Pa. L7	11 120x720	Munhaii, Pa. Ub	3484x72	
%192x275 %195x250	Coatesville, Pa. L7 Coatesville, Pa. L7		Geneva, Utah G1	%84x80	O Coatesville, Pa. L7
over %-%72x300	Cleveland J5	126x54 	Coatesville, Pa. L7 Gary, Ind. U5	%	0 Munhall,Pa. U5
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Coatesville, Pa. L7 Johnstown, Pa. B2	18126x720	Munhall, Pa. U5	%88x36	O IndianaHarbor, Ind. I-2 O Geneva, Utah G1
1 ts	SparrowsPoint,Md. B2	126x720 13132x500) Gary, Ind. U5	%	Johnstown, Pa. B2
$\frac{11}{16}$	SouthChicago,Ill. U5 Munhall,Pa. U5	132x540 13	Coatesville, Pa. L7 Munhall, Pa. U5	%	Gary, Ind. U5 Munhall, Pa. U5
1130x475 1130x600	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1 45	SparrowsPt.,Md. B2	3490x80 3490x84	O Coatesville, Pa. L7
1 1830x720	SouthChicago, Ill. U5	138x480 138x540	Coatesville, Pa. L7	%92x30	0 IndianaHarbor, Ind. I-2
110	Munhall, Pa. U5 Coatesville, Pa. L7	11) Munnali, Pa. Up	3496x30	O IndianaHarbor, Ind. 1-2 O IndianaHarbor, Ind. 1-2
1 16 ·····36x575	Johnstown, Pa. B2	 	Gary, Ind. U5	34	0 Geneva, Utah G1
	Geneva, Utah G1 SparrowsPoint, Md. B2	144x540	Coatesville, Pa. L7 Munhall, Pa. U5	%96x47	5 Johnstown, Pa. B2
11	SouthChicago, Ill. U5 Munhall, Pa. U5	31	SparrowsPt.,Md. B2	%	0 Gary, Ind. U5
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Johnstown, Pa. B2	18146x480	Gary, Ind. U5	%96x75	O Coatesville, Pa. L7
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SparrowsPoint,Md. B2 SouthChicago,Ill. U5	150x360 150x540) SparrowsPt.,Md. B2	%	60 Geneva, Utah G1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Munhall, Pa. U5	11	Munhall, Pa. U5	%102x4 %102x7	50 Johnstown, Pa. B2
15	Gary, Ind. U5 South Chicago, Ill. U5	11	Coatesville, Pa. L7 Coatesville, Pa. L7	3/4	20 Gary, Ind. U5
11	Coatesville, Pa. L7 Munhall, Pa. U5	168x546 11	Coatesville, Pa. L7	%102x7	
1 1 x650	Johnstown, Pa. B2	11 180x47!	Coatesville, Pa. L7	%104x4 %108x4	25 Johnstown, Pa. B2
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Johnstown, Pa. B2	186x400 192x278	Coatesville, Pa. L7 Coatesville, Pa. L7	%108x7	20 Coatesville, Pa. L7
$\frac{1}{16}$	Gary, Ind. U5 South Chicago, Ill. U5	195x250	Coatesville, Pa. L7	%	20 Gary, Ind. U5 20 Munhall, Pa. U5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Coatesville, Pa. L7	3/4	Johnstown.Pa. B2	%108x8	40 SparrowsPt.,Md. B2
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SparrowsPoint,Md. B2 Munhall,Pa. U5	%	SparrowsPoint, Md. B2 SouthChicago, Ill. U5	%	00 Johnstown, Pa. B2
	SouthChicago, Ill. U5	%	Munhall, Pa. U5	34114x5 34114x6	40 Coatesville, Pa. L7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Johnstown, Pa. B2 Gary, Ind. U5	3/430x475 3/430x564	Johnstown, Pa. B2 Indiana Harbor, Ind. I-2	34114x7	20 Munhall, Pa. U5
11	Coatesville, Pa. L7 Sparrows Point, Md. B2	8/430x600	SparrowsPoint, Md. B2 SouthChicago, Ill. U5	%115x3	
1160x900	Munhall, Pa. U5	%30x720 %30x900	Munhall, Pa. U5	¾120x3	60 Geneva, Utah G1
15	SouthChicago,Ill. U5 Johnstown,Pa. B2	%36x420 %36x550	Coatesville, Pa. L7 Johnstown, Pa. B2	%120x5	40 Coatesville.Pa. L7
11	Gary, Ind. U5	%36x564	IndianaHarbor, Ind. I-2	%120x6 %120x7	00 Gary.Ind. U5
11	Coatesville, Pa. L7 SparrowsPoint, Md. B2	%36x600 %36x600	Geneva, Utah G1 SparrowsPoint, Md. B2	34120x7	20 SparrowsPt., Md. B2
ii	Munhall, Pa. U5	%36x720	SouthChicago,Ill. U5 Munhall,Pa. U5	%	40 Geneva, Utah G1 40 Coatesville, Pa. L7
72x545	SouthChicago,Ill. U5 Johnstown,Pa. B2	%36x900 %42x540	IndianaHarbor, Ind. I-2	%	40 Gary, Ind. U5
16	Gary, Ind. U5 Coatesville, Pa. L7	%42x600 %42x650	Johnstown, Pa. B2 Sparrows Point, Md. B2	¾126x7	20 SparrowsPt.,Md. B2
11	SparrowsPoint,Md. B2	\$\\ \\ 3\\ 30\\ 900 \\ 3\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	SouthChicago,Ill. U5 Munhall,Pa. U5	%132x5	20 Gary, Ind. U5
11	Munhall, Pa. U5	76	244411431,2 44 00	,	To Coatesvine, ra. Li

W Hot-Rolled Plates, Sheared

W1 1 - 1	Width,		Thiskness	Width,	L	Thisbass	Width,	
Thickness (inches)	Max. Length (inches)	Mili Point, Producer	Thickness (inches)	Max. Lengt (inches)	Mill Point, Producer	Thickness (inches)	Max. Length (inches)	Mill Point, Producer
34	132x660	Munhall,Pa. U5	13	144x560	Munhall, Pa. U5		114x720	Munhall.Pa. U.5
34	132x720 138x480	SparrowsPt., Md. B2 Gary, Ind. U5	digos	144x650	SparrowsPt.,Md. B2 SparrowsPt.,Md. B2		114x720 120x2S0	SparrowsPt.,Md. B2 Geneva,Utah G1
S	138x540	Coatesville, Pa. L7 Munhall, Pa. U5	12	145x360	Gary, Ind. Up	3s	120x290	Johnstown, Pa. B2
84	138x600	SparrowsPt.,Md. B2	18	150x360 150x540	Munhall, Pa. Up	1 1/s	120x540	Coatesville, Pa. L7 Gary, Ind. U5
34	144x420 144x540	Gary, Ind. U5 Coatesville, Pa. L7		24x360 24x400	Coatesville, Pa. L7 Johnstown, Pa. B2	7/8	120x720	Munhall.Pa. U5 SparrowsPt.,Md. B2
34	144x560	Munhall, Pa. U5	. '8	24X490	Munhall.Pa. U5	78	126x540	Coatesville, Pa. L7
S ₄	144x650 146x480	SparrowsPt.,Md. B2 SparrowsPt.,Md. B2	7s 7/8	24x600	SparrowsPoint, Md. B2 Johnstown, Pa. B2	7/8	126x540 126x720	Gary, Ind. U5 Munhall, Pa. U5
3,	145x360	Gary, Ind. U5 SparrowsPt., Md. B2	7/8	30x495	Munhall, Pa. U5 Indiana Harbor, Ind. 1-2	7/8	126x720	SparrowsPt., Md. B2
34	150x360 150x540	Coatesville, Pa. L7	7/8	30x600	SparrowsPoint, Md. B2	7/8	132x520	Gary, Ind. U5 Coatesville, Pa. L7
S ₄	150x540	Munhall,Pa. U5 Coatesville,Pa. L7	78	36x420	Coatesville, Pa. L7 Geneva, Utah G1		132x660	Munhall.Pa. U5 SparrowsPt.,Md. B2
3/4	162x540	Coatesville, Pa. L7	%	36x520	Munhall, Pa. U5	7/8	138x480	Gary, Ind. U5
34	168x540 174x500	Coatesville, Pa. L7 Coatesville, Pa. L7	% %	36x525	Johnstown.Pa. B2 IndianaHarbor,Ind. I-2	1/8	138x540	Coatesville, Pa. L7 Munhall, Pa. U5
3,	1S0x475	Coatesville, Pa. L7 Coatesville, Pa. L7	7/8	36x600	SparrowsPoint, Md. B2 Munhall, Pa. U5	7/8	138x720	SparrowsPt., Md. B2
3,	192x300	Coatesville, Pa. L7	7/8	42x540	IndianaHarbor, Ind. I-2	7/s	144x540	Gary, Ind. U5 Coatesville, Pa. L7
13	195 x250	Coatesville, Pa. L7 Johnstown, Pa. B2	7/8	42x550 - 42x650	Johnstown, Pa. B2 SparrowsPoint, Md. B2	7/8 · · · · · · · · · · · · · · · · · · ·	144x560	Munhall, Pa. U5 SparrowsPtMd. B2
18	,,,,,,,24x495	Munhall,Pa. U5 SparrowsPt.,Md. B2	7s	45x540	IndianaHarbor, Ind. I-2	78	146x4S0	SparrowsPt., Md. B2
13	24x600 30x450	Johnstown, Pa. B2	78	48x600	Munhall, Pa. U5 Gary, Ind. U5	7/8 · · · · · · · · · ·	148x360 150x360	Gary, Ind. U5 SparrowsPt., Md. B2
190	30x515	Munhall, Pa. U5 SparrowsPt., Md. B2		48x800 48 \(\frac{1}{16} \) x59	Coatesville, Pa. L7		150x540	Coatesville, Pa. L7 Munhall, Pa. U5
1 1	36x450	Geneva, Utah G1	7	48-5x84	0 SparrowsPtMd. B2	7/s	156x540	Coatesville, Pa. L7
13	36x520 36x525	Munhall,Pa. U5 Johnstown,Pa. B2	7/8	54x500	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	1/8 · · · · · · · · · · · · · · · · · · ·	162x540	Coatesville, Pa. L7 Coatesville, Pa. L7
18	36x600 42x520	SparrowsPt.,Md. B2 Munhall,Pa. U5	78	54x660	Munhall, Pa. U5	7/8	174x500	Coatesville, Pa. L7 Coatesville, Pa. L7
3	42x575	Johnstown, Pa. B2		54x720 54x800	Gary, Ind. U5 Coatesville, Pa. L7	7/8	186x400	Coatesville, Pa. L7
	42x650 4Sx600	SparrowsPt.,Md. B2 Munhall.Pa. U5	7 ₈	54x840	SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2	7/8	192x300 195x250	Coatesville, Pa. L7 Coatesville, Pa. L7
18	48x720 48 ₁₆ x600	Gary, Ind. U5 Johnstown, Pa. B2	78	60x575	Johnstown, Pa. B2	18	24x350 30x425	Johnstown, Pa. B2
13	48 16 x840	SparrowsPt.,Md. B2 Johnstown,Pa. B2	7/8	60x72060x720	Gary, Ind. U5 Munhall, Pa. U5	18	36x525	Johnstown, Pa. B2 Johnstown, Pa. B2
100	54x625	Munhall.Pa. U5	7,8	60xS00	Coatesville, Pa. L7 SparrowsPoint, Md. B2	1000	42x550 48 ₁₆ x590	Johnstown, Pa. B2 Johnstown, Pa. B2
12	54x720 54x840	Gary, Ind. U5 SparrowsPt., Md. B2	78	66x420	IndianaHarbor, Ind. I-2	1 18	54x580 60x575	Johnstown, Pa. B2 Johnstown, Pa. B2
18	60x610 60x720	Johnstown, Pa. B2 Gary, Ind. U5	7/8	66x550 66x720	Johnstown, Pa. B2 Gary, Ind. U5	18	66x550	Johnstown,Pa. B2
18	60x720	Munhall, Pa. U5	7 ₈	66x720	Munhall, Pa. U5 Coatesville, Pa. L7	100	72x525 78x500	Johnstown, Pa. B2 Johnstown, Pa. B2
48	60xS40 66x590	SparrowsPt.,Md. B2 Johnstown.Pa. B2	7/8	66x840	SparrowsPoint, Md. B2		84x475 90x450	Johnstown, Pa. B2 Johnstown, Pa. B2
()	66x720 66x720	Gary, Ind. U5 Munhall, Pa. U5	7/8	72x525	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	1 48	96x425	Johnstown, Pa. B2
13	66x540	SparrowsPt.,Md. B2 Johnstown,Pa. B2	1/8	72x720	Gary, Ind. U5 Munhall, Pa. U5	18	102x400 104x350	Johnstown, Pa. B2 Johnstown, Pa. B2
13	72x560 72x720	Gary.Ind. U5	7/8	72x800	Coatesville, Pa. L7 Sparrows Point, Md. B2	18	108x350	Johnstown, Pa. B2 Johnstown, Pa. B2
18	72x720	Munhall.Pa. U5 SparrowsPt.,Md. B2	78	76x360	IndianaHarbor, Ind. 1-2	15	114x310	Johnstown, Pa. B2 Johnstown, Pa. B2
13	78x535 78x720	Johnstown, Pa. B2 Gary, Ind. U5	% · · · · · · · · · · · · · · · · · · ·	78 x 500	Johnstown, Pa. B2 Gary, Ind. U5			
18	78 x 720	Munhall, Pa. U5	7/8	78 x720 78 x 500	Munhall, Pa. U5 Coatesville, Pa. L7	1	24x350 24x360	Johnstown, Pa. B2 Coatesville, Pa. L7
33	75x\$40 84x4\$0	SparrowsPt.,Md. B2 Geneva.Utah G1	78	75x540	SparrowsPoint, Md. B2	1	24x450 24x600	Munhall,Pa. U5 SparrowsPt.,Md. B2
100	84x510 84x720	Johnstown, Pa. B2 Gary, Ind. U5	% %	S0x360	IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2	1	30x425 30x465	Johnstown, Pa. B2 Munhall, Pa. U5
18	84x720 84x840	Munhall, Pa. U5 SparrowsPtMd. B2	7/8	84x475	Johnstown, Pa. B2 Geneva, Utah G1	1	30x540 I	ndianaHarbor, Ind. 1-2
1 13		Munhall, Pa. U5	7/8	S4x720	Coatesville, Pa. L7	1	30x600 36x420	SparrowsPt.,Md. B2 Coatesville,Pa. L7
33	90x420 90x500	Geneva, Utah G1 Johnstown, Pa. B2	7/8	\$4x720 \$4x720	Gary, Ind. U5 Munhall, Pa. U5	1	36x480 36x520	Geneva, Utah G1 Munhall, Pa. U5
1 1	90x720 90x720	Gary, Ind. U5 Munhall, Pa. U5	7/8	84x840 87x720	SparrowsPoint,Md. B2 Munhall.Pa. U5	1	36x540 I	ndianaHarbor,Ind. I-2 Johnstown,Pa. B2
13	90x840	SparrowsPt.,Md. B2	7/8	88x324	IndianaHarbor, Ind. I-2	1	36x600	SparrowsPt., Md. B2
	96x360 96x450	Geneva. Utah G1 Johnstown. Pa. B2	7/8	90x400 90x450	Geneva, Utah `G1 Johnstown, Pa. B2	1	42x520 42x525	Munhall, Pa. U5 Johnstown, Pa. B2
1000	96x720	Gary,Ind. U5 Munhall,Pa. U5	7/8	90x720 90x720	Coatesville, Pa. L7 Gary, Ind. U5	1	42x540 I	ndianaHarbor,Ind. I-2 SparrowsPt.,Md. B2
1 18	96x840 102x400	SparrowsPtMd. B2 Johnstown,Pa. B2	7/8	90x720	Munhall, Pa. U5 SparrowsPoint, Md. B2	1	48x540 I	ndianaHarbor,Ind. 1-2
1 18	102x720	Gary, Ind. U5	78	92x240	IndianaHarbor, Ind. I-2	1	48x600	Munhall,Pa. U5 Gary,Ind. U5
13	102x720	Munhall.Pa. U5 SparrowsPt.,Md. B2	7/8	96x240	IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2	1	48x800 48 ₁₈ x570	Coatesville, Pa. L7 Johnstown, Pa. B2
134	104x375	Johnstown, Pa. B2 Johnstown, Pa. B2	7/8	96x360 96x360	Fontana, Calif. K1 Geneva, Utah G1	1	48 3 x840	SparrowsPt.,Md. B2 ndianaHarbor,Ind. 1-2
18	108x720 108x720	Gary, Ind. U5 Munhall, Pa. U5	7/8	96x425	Johnstown, Pa. B2	1	54x560	Johnstown, Pa. B2
1 1	108xS40	SparrowsPt.,Md. B2	7/8	96x720	Coatesville, Pa. L7 Gary, Ind. U5	1	54x660 54x720	Munhall,Pa. U5 Gary,Ind. U5
13	110x360 114x350	Johnstown, Pa. B2 Johnstown, Pa. B2	1/8	96x720	Munhall,Pa. U5 SparrowsPoint,Md. B2	1	54x800	Coatesville, Pa. L7 SparrowsPt., Md. B2
13	114x360	Geneva, Utah G1 Gary, Ind. U5	7/8	102x360	Geneva, Utah G1	1		ndianaHarbor,Ind. I-2 Johnstown,Pa. B2
13	114x720	Munhall,Pa. U5 SparrowsPt.,Md. B2	7/8	102x400	Johnstown, Pa. B2 Coatesville, Pa. L7	1	60x720	Gary, Ind. U5 Munhall, Pa. U5
13	120x300	Johnstown, Pa. B2	% %	102x720 102x720	Gary, Ind. U5 Munhall, Pa. U5	1	60x720 60x800	Coatesville, Pa. L7
13	120x330 120x600	Geneva, Utah G1 Gary, Ind. U5	7/8	102x840 104x350	SparrowsPt.,Md. B2 Johnstown,Pa. B2	1	60x840 66x408 I	SparrowsPt.,Md. B2 ndianaHarbor,Ind. I-2
13	120x720	Munhall,Pa. U5 SparrowsPt.,Md. B2	7/8	108x330	Geneva, Utah G1	1	66x525 66x720	Johnstown, Pa. B2 Gary, Ind. U5
}	126x540	Gary, Ind. U5	7/8	108x350 108x720	Johnstown, Pa. B2 Coatesville, Pa. L7	1	66x720	Munhall, Pa. U5
18	126x720	Munhall,Pa. U5 SparrowsPt.,Md. B2	7/8	108x720 108x720	Gary, Ind. U5 Munhall, Pa. U5	î	66x840	Coatesville, Pa. L7 SparrowsPt., Md. B2
1 18	132x520 132x660	Gary,Ind. U5 Munhall,Pa. U5	7/8	108x840	SparrowsPt.,Md. B2	1	72x500	dianaHarbor,Ind. I-2 Johnstown,Pa. B2
18	132x720 138x480	SparrowsPt.,Md. B2 Gary.Ind. U5	7/8	110x320 114x310	Johnstown, Pa. B2 Johnstown, Pa. B2	1	72x720 72x720	Gary, Ind. U5 Munhall, Pa. U5
₹ · · · · · · · · · · · · · · · · · · ·	138x600 138x720	Munhall, Pa. U5 SparrowsPt., Md. B2	7/8	114x320 114x540	Geneva, Utah G1 Coatesville, Pa. L7	1	72x750	Coatesville, Pa. L7 SparrowsPt., Md. B2
16	144x420	Gary, Ind. U5	7/8	114x660	Gary, Ind. U5	1	76x336 In	SparrowsPt.,Md. B2 idianaHarbor,Ind. I-2

FLAT-ROLLED CARBON STEEL

(Code number following mill point indicates producing company, key on page 38)



Hot-Rolled Plates, Sheared

	Width,			Width,			Width,	
ickness aches)	Max. Lengt	h Mill Point, Producer	Thickness (inches)	Max. Length	Mill Point, Producer	Thickness (inches)	Max. Lengtl (inches)	Mill Point, Producer
	78x475	Johnstown, Pa. B2	1 1/8	48x720	Gary, Ind. U5	11/8	156x540	Coatesville, Pa. L7
	78x480 78x720	Geneva, Utah G1 Coatesville, Pa. L7	1 1/8	48x800	Coatesville, Pa. L7 Johnstown, Pa. B2	1 1/8	162x540 168x540	Coatesville, Pa. L7 Coatesville, Pa. L7
	78x720	Gary, Ind. U5	1 1/8	48 /2 x84(SparrowsPtMd. B2	11/8	174x500	Coatesville, Pa. L7
	78x720 78x840	Munhall,Pa. U5 SparrowsPt.,Md. B2	11/8	54x520	IndianaHarbor, Ind. 1-2 Johnstown, Pa. B2		180x475	Coatesville, Pa. L7 Coatesville, Pa. L7
	80x324	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	1%	54x660 54x720	Munhall, Pa. U5 Gary, Ind. U5	11/8	192x300	Coatesville, Pa. L7
	84x450	Johnstown, Pa. B2	11/8	54x800	Coatesville, Pa. L7	1 1/4	195x250 24x360	Coatesville, Pa. L7 Coatesville, Pa. L7
	84x460 84x720	Geneva, Utah G1 Coatesville, Pa. L7	11/8		SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2	11/4	24x400 24x600	Munhall, Pa. U5 Sparrows Point, Md. B2
	84x720 84x720	Gary, Ind. U5 Munhall, Pa. U5	1 1/8	60x515	Johnstown, Pa. B2 Gary, Ind. U5	11/4	30x450	Munhall, Pa. U5
	84x840	SparrowsPt.,Md. B2	11/8	60x720	Munhall, Pa. U5	11/4		SparrowsPoint,Md. B2 IndianaHarbor,Ind. I-2
	87x720 88x300	Munhall, Pa. U5 Indiana Harbor, Ind. I-2	1%	60x800	Coatesville, Pa. L7 Sparrows Pt., Md. B2		36x420	Coatesville,Pa. L7 Johnstown,Pa. B2
	90x350 90x425	Geneva, Utah G1 Johnstown, Pa, B2	1%	66x300	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	11/4	36x480	Geneva, Utah G1
	90x720	Coatesville, Pa. L7	11/3	66x720	Coatesville, Pa. L7	11/4	36x500	IndianaHarbor,Ind. I-2 Munhall,Pa. U5
	90x720 90x720	Gary, Ind. U5 Munhall, Pa. U5	11/8	66x720	Gary, Ind. U5 Munhall, Pa. U5		36x600 40x480]	SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2
	90x840 92x240	SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2		66x840	SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2	11/4	42x460	Johnstown, Pa. B2
	94x240	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	11/8	72x475 72x480	Johnstown, Pa. B2 Geneva, Utah G1	11/4		Munhall, Pa. U5 SparrowsPoint, Md. B2
	96x315	Fontana, Calif. K1	1%	72x720	Coatesville, Pa. L7	11/4		IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2
	96x340 96x420	Geneva, Utah G1 Johnstown, Pa. B2	1%	72x720	Gary, Ind. U5 Munhall, Pa. U5	11/4	48x600	Munhall,Pa, U5
	96x720	Coatesville, Pa. L7 Gary, Ind. U5	11/8	72x840	SparrowsPt.,Md. B2 IndianaHarbor,Ind. I-2		48x720 48x800	Gary, Ind. U5 Coatesville, Pa. L7
	96x720 96x720	Munhall,Pa. U5	11/8	78x450	Johnstown, Pa. B2	11/4	48 1 x478	Johnstown,Pa. B2 SparrowsPt.,Md. B2
	96x840 102x320	SparrowsPt.,Md. B2 Geneva,Utah G1	11/8	78x460	Geneva, Utah G1 Coatesville, Pa. L7	11/4	52x414]	IndianaHarbor, Ind. I-2
	102x375	Johnstown, Pa. B2	1 1/8	78x720	Gary, Ind. U5 Munhall, Pa. U5		54x500 54x660	Johnstown,Pa. B2 Munhall,Pa. U5
	102x720 102x720	Gary, Ind. U5	11/8	78x840	SparrowsPt.,Md. B2	11/4	54x720 54x800	Gary, Ind. U5 Coatesville, Pa. L7
	102x720 102x840	SparrowsPtMd. B2	1 1/8	84x240	IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2	11/4	54x840	SparrowsPoint, Md. B2
	104x325	Johnstown, Pa. Bz	11/8	84x390 84x425	Geneva, Utah G1 Johnstown, Pa. B2	11/4		IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2
	108x300	Johnstown, Pa. B2	1 1/8	84x720	Coatesville, Pa. L7	11/4	60x490 60x720	Johnstown, Pa. B2 Coatesville, Pa. L7
	108x720	Gary, Ind. Up	11/8	84x720 84x720	Gary, Ind. U5 Munhall, Pa. U5	11/4	60x720	Gary,Ind. U5
	108x720	Munnaii.Pa. Ub		84x840	SparrowsPt.,Md. B2 Munhall,Pa. U5	11/4	60x720	Munhall, Pa. U5 SparrowsPoint, Md. E2
	110x320	Johnstown, Pa. B2	11/2	88 x24 0	Indiana Harbor, Ind. I-2 Geneva, Utah G1		64x336]	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2
	114x285	Johnstown, Pa. B2	1 1/8	90x400	Johnstown,Pa. B2	11/4	66x480	Geneva, Utah G1
	114x540	Coatesville, Pa. L7	11/4	90x720	Coatesville, Pa. L7 Gary, Ind. U5	11/4	66x720	Coatesville,Pa. L7 Gary,Ind. U5
	114x720	Munhall, Pa. U5	11/8	90x720 90x840	Munhall, Pa. U5 SparrowsPt., Md. B2	11/4	66x720	Munhall, Pa. U5 Sparrows Point, Md. B2
	114x720	Harrisburg, Pa. C5	1%	92x240	IndianaHarbor,Ind. I-2	11/4	68x318]	IndianaHarbor,Ind. I-2
	120x260 120x280	Geneva, Ütah G1 Johnstown, Pa. B2	11/4	96x240	IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2	11/4	72x450	indianaHarbor,Ind. I-2 Johnstown,Pa. B2
	120x540 120x600	Coatesville, Pa. L7	11/8	96x273	Fontana, Calif. K1 Geneva, Utah G1	11/4	72x470	Geneva, Utah G1 Coatesville, Pa. L7
	120x720	Munhall, Pa. U5	11/8	96x375	Johnstown, Pa. B2 Coatesville, Pa. L7	11/4	72x720	Gary, Ind. U5
	120x720	Coatesville, Pa. L7	11/8	96x720	Gary, Ind. U5	11/4		Munhall, Pa. U5 SparrowsPoint, Md. B2
	126x540	Gary, Ind. Ub	11/8	96x720	Munhall, Pa. U5 SparrowsPt., Md. B2	11/4	76x284]	indianaHarbor,Ind. I-2 Geneva,Utah G1
	126x720 132x520	SparrowsPt., Md. B2	11/8	102x285	Geneva, Utah G1 Johnstown, Pa. B2	11/4	78x425	Johnstown, Pa. B2 Coatesville, Pa. L7
	132x540	Coatesville, Pa. L7	11/6	102x720	Coatesville, Pa. L7	11/4	78x720	Gary, Ind. U5
	132x660 132x720	SparrowsPt.,Md. B2	11/2	102x720 102x720	Gary, Ind. U5 Munhall, Pa. U5	11/4	78x720	Munhall,Pa. U5 SparrowsPoint,Md, B2
	138x480 138x540	Gary, Ind. U5	1½ 1¼	102x720 104x325	SparrowsPt.,Md. B2 Johnstown,Pa. B2	11/4	80x270 I	ndianaHarbor,Ind. 1-2 ndianaHarbor,Ind. 1-2
	138x600	Munhall,Pa. U5	11/6	108x270	Geneva, Utah G1 Johnstown, Pa. B2	11/4	84x320	Geneva, Utah G1
	138x720	Gary, Ind. U5	1 1/8	. , , , LUSX (ZU	Coatesville, Pa. L7	11/4	84x400 84x720	Johnstown, Pa. B2 Coatesville, Pa. L7
	144x540 144x560	Munhall, Pa. U5	11/8	108x720	Gary,Ind. U5 Munhall,Pa. U5	11/4	84x720	Gary,Ind. U5 Munhall,Pa. U5
	144x650 146x480	SparrowsPt.,Md. B2	11/8	108x720	SparrowsPt.,Md. B2 Johnstown,Pa. B2	14		SparrowsPoint,Md. B2 Munhall,Pa. U5
	148x360	Gary, Ind. U5	11/8	114x290 114x540	Johnstown, Pa. B2 Coatesville, Pa. L7	11/4	88x244 1	IndianaHarbor,Ind. I-2
	150x360	Coatesville, Pa. L7	11/2	114x660	Gary, Ind. U5	11/4	90x268	Fontana, Calif. K1 Geneva, Utah G1
	150x540	Coatesville.Pa. L7	1%	114x720	Munhall,Pa. U5 SparrowsPt.,Md. B2	11/4	90x380	Johnstown, Pa. B2
	162x540 168x540	Coatesville, Pa. L7	11/2	120x250 120x540	Johnstown, Pa. B2 Coatesville, Pa. L7	11/4	90x720	Coatesville, Pa. L7 Gary, Ind. U5
	174x500	Coatesville, Pa. L7	11/2	120x600	Gary, Ind. U5	11/4	90x720	Munhall, Pa. U5 SparrowsPoint, Md. B2
	180x475	Coatesville, Pa. L7	11/4	120x720	Munhall,Pa. U5 SparrowsPt.,Md. B2 Coatesville,Pa. L7	11/4	92x225 1	IndianaHarbor, Ind. 1-2
	192x300 195x250	Coatesville, Pa. L7	1 1/2	126x540 126x540	Gary, Ind. U5	11/4	96x270	ndianaHarbor,Ind. I-2 Geneva,Utah G1
and over	72x240	Economy,Pa. B14	11/4	126x700	SparrowsPt.,Md. B2 Munhall,Pa. U5	11/4	96x360 96x720	Johnstown, Pa. B2 Coatesville, Pa. L7
1/2	24x360 24x450	Coatesville, Pa. L7 Munhall, Pa. U5	11/8	126x720 132x520	Gary, Ind. U5	11/4	96x720	Gary, Ind. U5 Munhall, Pa. U5
1/8	24x600	SparrowsPt.,Md. B2 Munhall,Pa. U5	11/8	132x540	Coatesville, Pa. L7 Munhall, Pa. U5	11/4		SparrowsPoint, Md. B2
1/6	30x540	IndianaHarbor, Ind. I-2	11/8	132x665 138x480	SparrowsPt.,Md. B2	14	102x255	Geneva, Utah G1 Johnstown, Pa. B2
1/0	30x600 36x420	SparrowsPt.,Md. B2 Coatesville,Pa. L7	11/2	138x540	Gary, Ind. U5 Coatesville, Pa. L7	11/4	102x720 102x720	Coatesville, Pa. L7 Gary, Ind. U5
1/8	36x475 36x480	Johnstown, Pa. B2 Geneva, Utah G1	11/8	138x600 138x640	Munhall,Pa. U5 SparrowsPt.,Md. B2	11/4	102x720	Munhall,Pa. U5
1/8	36x520	Munhall, Pa. U5 Indiana Harbor, Ind. I-2	11/6	144x420	Gary, Ind. U5 Coatesville, Pa. L7	11/4	102x720	SparrowsPt.,Md. B2 Johnstown.Pa. B2
1/2	36x600	SparrowsPt.,Md. B2	11/4	144X26U	Munhall, Pa. U5	11/4	108x240 108x300	Geneva, Utah G1 Johnstown, Pa. B2
1/8	42x520	IndianaHarbor, Ind. 1-2 Munhall, Pa. U5	11/8	144x610 146x480	SparrowsPt.,Md. B2 SparrowsPt.,Md. B2	11/4	108x720	Coatesville, Pa. L7
1/8	42x530 42x650	Johnstown, Pa. B2 SparrowsPt., Md. B2	11/4	148x360 150x360	Gary, Ind. U5 SparrowsPt., Md. B2	11/4	108x720	Gary,Ind. U5 Munhall,Pa. U5
1/8	48x360	IndianaHarbor, Ind. I-2	11/8	150x540 150x540	Coatesville, Pa. L7 Munhall, Pa. U5	11/4	108x720 110x275	SparrowsPt.,Md. B2 Johnstown,Pa. B2
78	48x600	Munhall,Pa. U5	1%					



Hot-Rolled Plates, Sheared_

	Thick	kness	Width, Max. Leng (inches)	th Mill Point, Producer	Thickness (inches)	Width, Max. Leng (inches)	th Mill Point, Producer	Thick	(ness	Width, Max. Leng	
l	1 1/4		114x27			60x720	Munhall,Pa. U5	1%		(inches)	Mill Point, Produce
I	11/4		114x54	0 Coatesville, Pa. L7	1½	60x720	SparrowsPoint, Md. B2	1 1 1 1 1 1 1 1		78x330	Geneva, Utah G Geneva, Utah G
ı	11/4		114x66		1½	64x282	IndianaHarbor, Ind. I-2	1%		84x240	Geneva, Utah G
1	11/4		114x72	0 Munhall,Pa. U5 0 SparrowsPt.,Md. B2	1½	66x425	Johnstown, Pa. B2 Geneva, Utah G1				Geneva, Utah G
ı	1 1/4		.,120x26	0 Johnstown, Pa. B2	1½	66x720	Coatesville, Pa. L7		********		Geneva, Utah G Coatesville, Pa. 17
ı	11/4		120x54	0 Coatesville, Pa. L7	1 1 1/2	66x720	Gary, Ind. U5	1 %		24x400	Munhall, Pa. U
ı	11/4		120x60	Gary, Ind. U5 SparrowsPt., Md. B2	11/2	66x720	Munhall, Pa. U5 SparrowsPoint, Md. B2	1 %		24x480	SparrowsPoint, Md. R.
1	11/4		120x72	0 Munhall, Pa. U5	11/2	68x264	IndianaHarbor, Ind. I-2				Munhall,Pa. U. SparrowsPoint,Md. B
ł	11/4		126x54	0 Coatesville, Pa. L7	1½	72x250 72x390	IndianaHarbor, Ind. I-2 Geneva, Utah G1	1 3/4		32x480	Indiana Harbor, Ind. I-9
ł	11/4		126x54	Gary, Ind. U5 SparrowsPt., Md. B2		72x400	Johnstown, Pa. B2		• • • • • • • • •		Johnstown, Pa. Bi
1	11/4		126x72	0 Munhall, Pa. U5	1½	72x720	Coatesville, Pa. L7			36x420	Coatesville, Pa. Li Indiana Harbor, Ind. 1-2
1	11/4		132x52	Gary, Ind. U5 Coatesville, Pa. L7	1½	72x720	Gary,Ind. U5 Munhall,Pa. U5	1 %		36x480	SparrowsPoint, Md. B2
1	11/4		132x600	SparrowsPt.,Md. B2	1 1 1/2		SparrowsPoint, Md. B2	1%		36x500	Munhall, Pa. U. IndianaHarbor, Ind. 1-2
1	11/4		132X060) Munnan, ra. 05	1½	76x225 78x340	IndianaHarbor,Ind. I-2 Geneva,Utah G1	1%		42x425	Johnstown, Pa. B2
Ī	11/4		138x480	Gary, Ind. U5 Coatesville, Pa. L7	1 1/2	78 x 375	Johnstown, Pa. B2		• • • • • • • • •		Munhall.Pa. Ut
1	11/4		138x578	SparrowsPt.,Md. B2		78x720	Coatesville, Pa. L7	1%		42x600 44x351	SparrowsPoint, Md. Ba IndianaHarbor, Ind. I-2
ı	11/4		138x60	0 Munhall, Pa. U5		78x720	Gary,Ind. U5 Munhall,Pa. U5	1 %		48x320	IndianaHarbor, Ind. I-2
ı	11/4		144x420	Coatesville, Pa. L7	1½	78x720	SparrowsPoint, Md. B2				Coatesville, Pa. La
ı	1 1/4		144x55(SparrowsPt.,Md. B2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	80x224	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2				Munhall,Pa. Uf Gary,Ind. Uf
l	1 1/4		144x566		1 1/2	84x250	Geneva, Utah G1	1 3/4		48-4x4	25 Johnstown, Pa. B2
ı	11/4		148x360	Gary, Ind. U5	1½	84x350 84x720	Johnstown, Pa. B2 Coatesville, Pa. L7	1%		48 1 x7:	20 SparrowsPt.,Md. B2 Geneva, Utah G1
1	11/4		150x360	SparrowsPt.,Md. B2	1½	84x720	Gary, Ind. U5	1%		52x296	IndianaHarbor, Ind. I-2 Geneva, Utah Gi
1	11/4		150x540	Munhall, Pa. U5	1½	84x720	Munhall, Pa. U5	1 3/4		54x410	Geneva, Utah Gi
-	11/4		156x540	Coatesville, Pa. L7	1 1 1/2	84x720 87x720	SparrowsPoint, Md. B2 Munhall, Pa. U5				Johnstown,Pa. B2 Munhall,Pa. Ut
-	11/4		162x54(Coatesville, Pa. L7 Coatesville, Pa. L7	1 1 1/2	88x204	IndianaHarbor, Ind. I-2	1%		54x660	SparrowsPoint, Md. B2
200	11/4		168x540	Coatesville.Pa. L7	1½	90x210 90x224	Geneva, Utah G1 Fontana, Calif. K1				Coatesville, Pa. L.7 Gary, Ind. Ut
I	11/4		180x47	Coatesville, Pa. L7	1 1 1/2	90x325	Johnstown, Pa. B2			56x276	IndianaHarbor, Ind. I-2
ı	11/4		186x400	Coatesville, Pa. L7 Coatesville, Pa. L7	1½	90x720 90x720	Coatesville, Pa. L7	1 1 %		60x252	IndianaHarbor, Ind. I-2
ı	1 1/4		195x250	Coatesville, Pa. L7	1½	90x720	Gary, Ind. U5 Munhall, Pa. U5	1%		60x385	Geneva, Utah G1 Johnstown, Pa. B2
ı	1 % 1 %		24x360 36x420	Coatesville, Pa. L7 Coatesville, Pa. L7	1½	90x720	SparrowsPoint, Md. B2	1%		60x720	Coatesville, Pa. La
I	1 3%		48x620	Coatesville, Pa. L7	1½	92x196 94x192	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2				Gary, Ind. Ua Munhall, Pa. Ut
ı	1%		54x720 60x720	Coatesville, Pa. L7 Coatesville, Pa. L7	1 1½	96x210	Geneva, Utah G1	1 3/4		60x720	SparrowsPoint, Md. Bi
1	1 %		$\dots 66x720$	Coatesville, Pa. L7	1½	96x300 96x685	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1 3/4		64x240	IndianaHarbor, Ind. I-1
ı	1 %		72x720	Coatesville, Pa. L7 Coatesville, Pa. L7	1½	96x720	Coatesville, Pa. L7	1 %			Geneva, Utah Gi Johnstown, Pa. B.
1	1 %		78x720 84x720	Coatesville, Pa. L7		96x720	Gary, Ind. U5 Munhall, Pa. U5				Coatesville, Pa. L
1	1 3/8		90x244	Fontana, Calif. K1 Coatesville, Pa. L7	1½	102x200	Geneva, Utah G1	1 34			Gary,Ind. U! Munhall,Pa. U!
1	1 %		90x720 96x720	Coatesville, Pa. L7	1½	102x275	Johnstown, Pa. B2 SparrowsPt., Md. B2	1 %		66x720	SparrowsPoint.Md. B:
l	1 %		102x720	Coatesville, Pa. L7	1 1 1/2	102x720	Coatesville, Pa. L7	1%	• • • • • • • • • •	68x228	IndianaHarbor, Ind. Indian
ı	1 % 1 %		108x720	Coatesville, Pa. L7		102x720		1%		72x335	Geneva, Utah G:
ı	1 3/8		120x540	Coatesville, Pa. L7	1½	104x275	Johnstown, Pa. B2	1%		72×720	Johnstown, Pa. B. Coatesville, Pa. L'
ı	1%		126x54(132x54(Coatesville, Pa. L7	1½	108x200	Geneva, Utah G1 Johnstown Pa. B2	1%		72x720	Gary.Ind. U!
ı	1%		138x540	Coatesville, Pa. L7	1½	108x610	SparrowsPt.,Md. B2				Munhall,Pa. Ul SparrowsPoint,Md. B
ı	1%		144x54(150x54(Coatesville, Pa. L7 Coatesville, Pa. L7		108x660		134		76x204	IndianaHarbor, Ind. I-:
ı	1%		156 x 54(Coatesville, Pa. Li	1½	108x720	Munhall, Pa. U5				Geneva, Utah G Johnstown, Pa. B
ı	1%		162x540	Coatesville, Pa. L7	1½	110x250	Johnstown, Pa. B2 Johnstown, Pa. B2	134	• • • • • • • • • •	78x720	Coatesville, Pa. L
ı	1 %		174x500	Coatesville, Pa. Li	1½	114x540	Coatesville, Pa. L7				Gary, Ind. U. Munhall, Pa. U.
1	1%		180x475	Coatesville, Pa. L7	1½	114x580	SparrowsPt.,Md. B2 Gary.Ind. U5	1 %	· · · · · · · · · · ·	78x720	SparrowsPoint, Md. B.
1	1 %		192x300	Coatesville, Pa. L7	1½	114x720	Munhall, Pa. U5		• • • • • • • • •		Indiana Harbor, Ind. I-
1	1%		195x250 24x360	Coatesville, Pa. L7 Coatesville, Pa. L7	1½	115x168	Harrisburg, Pa. C5 Johnstown, Pa. B2	1 %		84x205	IndianaHarbor, Ind. I- Fontana, Calif. K
1	1 1/2		24x400	Munhall,Pa. U5	1 1/2	120x540	Coatesville.Pa. L7	1 34		84x220	Geneva, Utah G
1	11/2		24x600 30x420	SparrowsPoint, Md. B2 Munhall, Pa. U5		120x550	SparrowsPt.,Md. B2 Gary,Ind. U5			84x675	Johnstown, Pa. B SparrowsPoint, Md. B
ł	11/2		30x600	SparrowsPoint, Md. B2	1½	120x720	Munhall, Pa. U5	134		84x720	Coatesville, Pa. L
1	11/2		32x480	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	1½	126x525	SparrowsPt.,Md. B2 Coatesville,Pa. L7	1%	• • • • • • • • • •	84x720	Gary, Ind. U Munhall, Pa. U
1	1 1/2		36x420	Coatesville, Pa. L7	1½	126x540	Gary, Ind. U5	1%		87×600	Munhall,Pa. U
1	11/2		36x480	Geneva, Utah G1 Indiana Harbor, Ind. I-2	1½	126x720	Munhall, Pa. U5 Gary, Ind. U5			90x200	IndianaHarbor, Ind. I- Geneva, Utah G
ł	11/2		36x500	IndianaHarbor, Ind. I-2 Munhall, Pa. U5	1½	132x500	SparrowsPtMd. B2	1 34		90x275	Johnstown, Pa. B
1	11/2		36x600	SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2	1 1/2	132x540 132x660	Munhall.Pa. U5	1%	• • • • • • • • •	90x630	SparrowsPoint,Md. B Coatesville,Pa. L
1	13%		42x425	Johnstown,Pa. B2	1½	138x460	Gary, Ind. U5 SparrowsPt., Md. B2	1%		90x720	Gary, Ind. U Munhall, Pa. U
1	1½ 1½		42x480 42x520	Geneva, Utah G1 Munhall, Pa. U5	1%	138x477	Coatesville, Pa. L7	1%	· · · · · · · · · · · · · · · · · · ·	90x720 92x168	Munhall, Pa. U IndianaHarbor, Ind. I
1	1%		42x600	SparrowsPoint, Md. B2	1½	138x600	Munhall.Pa. U5	1% .	/	94x164	IndianaHarbor, Ind. I-
1	1½ 1½	• • • • • • • •	44x408 48x376	IndianaHarbor, Ind. I-2	1½	144x420 144x460	Gary, Ind. U5 SparrowsPt., Md. B2	1%	, f	96x265	Johnstown, Pa. B Sparrows Point, Md. B
1	1 1/2		48X43U	IndianaHarbor, Ind. I-2 Geneva, Utah G1	1½	144x540	Coatesville, Pa. L7	1%		96x680	Gary, Ind. U Coatesville, Pa. L
1			48 x600 48 x610	Munhall,Pa. U5 Coatesville,Pa. L7	$1\frac{1}{2}$	144x560 146x450	Munhall, Pa. U5 SparrowsPt., Md. B2				Coatesville, Pa. L Munhall, Pa. U
1	11/2		48x720	Gary, Ind. U5	1½	148x320	Gary, Ind. U5 SparrowsPt., Md. B2	1%		102x250	Johnstown, Pa. B
1	11/2		48 🖟 🛛	Johnstown, Pa. B2	1½	150x360 150x540	SparrowsPt.,Md. B2 Coatesville,Pa. L7	1%		102x555	SparrowsPt.,Md. B Gary,Ind. U
1	11/2		52x346	IndianaHarbor, Ind. I-2	1½	150x540	Munhall, Pa. U5	1 34 .		102x720	Coatesville, Pa. L
1	1 1/2		54x475	Johnstown, Pa. B2 Geneva, Utah G1	1½	156x540	Coatesville, Pa. L7 Coatesville, Pa. L7	1%		102x720	Munhall, Pa. U Johnstown, Pa. B
1	1 1/2		54x660	Munhall.Pa. U5	1½	168x540	Coatesville, Pa. L7	1%		108x225	Johnstown, Pa. B
1	11/2		54x720 54x720	Coatesville, Pa. L7 Gary, Ind. U5	1½	174x500 180x475	Coatesville, Pa. L7 Coatesville, Pa. L7	1% .		108x525	SparrowsPtMd. B
I	11/2		54x720	SparrowsPoint, Md. B2	1½	186x400	Coatesville, Pa. L7 Coatesville, Pa. L7	1%		108x720	Gary, Ind. U Coatesville, Pa. L
	11/2		56x320	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2		192x300 195x250	Coatesville, Pa. L7 Coatesville, Pa. L7	1% .		108x720	Munhall, Pa. U
	11/2		60x450	Johnstown, Pa. B2	1%	49x370	Geneva, Utah G1	1%		114x190	Johnstown, Pa. B Johnstown, Pa. B
	11/2		60x480	Geneva, Utah G1 Coatesville, Pa. L7	1% 1%	54x445 60x425	Geneva, Utah G1 Geneva, Utah G1	1% .		114x495	SparrowsPt.,Md. B Coatesville,Pa. I
1	11/2		60x720	Gary, Ind. U5		66x390	Geneva, Utah G1				Gary, Ind. U
-											



Hot-Rolled Plates, Sheared_

CONTINUED FROM PRECEDING PAGE

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	VAV: JAL		3471 512				
ickness	Width, Max. Lengt	th	Width, Thickness Max. Length	th	Thickness	Width, Max. Lengt	th
ches)	(inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer	(inches)	(inches)	Mill Point, Producer
. 4	114x720	Munhall, Pa. U5	284x260	Johnstown, Pa. B2	21/4	72x600	Munhall, Pa. U5
4	120x170	Johnstown, Pa. B2 Sparrows Pt., Md. B2	284x590 284x680	SparrowsPoint, Md. B2 Gary, Ind. U5	21/4	72x610	SparrowsPoint,Md. B2 Coatesville,Pa. L7
4	120x520	Gary, Ind. U5	284x720	Coatesville, Pa. L7		76x158	IndianaHarbor, Ind. I-2
	120x540		284x720	Munhall.Pa. U5	2½	78x240	Geneva, Utah G1
	120x660		287x545 288x153	Munhall,Pa. U5 IndianaHarbor,Ind. I-2		78x565	SparrowsPoint, Md. B2 Munhall, Pa. U5
: 1/4	126x480	Gary, Ind. U5	290x250	Johnstown, Pa. B2		78x720	Coatesville, Pa. L7
	126x540		290x550	SparrowsPoint, Md. B2	21/4	80x150	IndianaHarbor, Ind. I-2
	132x430	SparrowsPtMd. B2	290x640 290x720	Gary, Ind. U5 Coatesville, Pa. L7	2¼ 2¼	84x142 84x160	IndianaHarbor, Ind. 1-2 Fontana, Calif. K1
14	132x440	Gary, Ind. U5	2 90x720	Munhall, Pa. U5	21/4	84x525	SparrowsPoint, Md. B2
1/4	132x540	Coatesville, Pa. L7 Munhall, Pa. U5	292x147 294x144	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	21/4	84x600	Munhall, Pa. U5 Coatesville, Pa. L7
1/4	138x410	SparrowsPt.,Md. B2	296x235	Johnstown,Pa. B2			IndianaHarbor, Ind. I-2
1 3/4	138x420	Gary, Ind. U5	2	SparrowsPoint, Md. B2	21/4	90x490	SparrowsPoint, Md. B2
3/4	138x540		296x600 296x720	Gary, Ind. U5 Coatesville, Pa. L7	21/4	90x600 90x720	Munhall, Pa. U5 Coatesville, Pa. L7
1/4	144x390	SparrowsPt.,Md. B2	296x720	Munhall, Pa. U5	21/4	92x130	IndianaHarbor, Ind. I-2
3/4	144x40(Gary, Ind. U5 Coatesville, Pa. L7	2	Johnstown, Pa. B2 Sparrows Pt., Md. B2		94x128	IndianaHarbor, Ind. I-2
3/4	144x560	Munhall, Pa. U5	2102x560	Gary, Ind. U5	$2\frac{1}{4}$	96x460	SparrowsPoint, Md. B2 Munhall, Pa. U5
1/2	146x380	SparrowsPt.,Md. B2	2102x690) Munhall, Pa. U5	21/4	96x720	Coatesville, Pa. L7
1/4	148x280	SparrowsPt.,Md, B2	2102x720 2104x180	Coatesville, Pa. L7 Johnstown, Pa. B2	2¼ 2¼	102x430	SparrowsPt.,Md. B2 Munhall,Pa. U5
34	150x54(Coatesville, Pa. L7	2108x180	Johnstown, Pa. B2	21/4	102x720	Coatesville, Pa. L7
%	150x54(Munnaii, Pa. Uo	2108x460 2108x530		21/4	108x410	SparrowsPt.,Md. B2 Munhall,Pa. U5
34	162x540	Coatesville, Pa. L7	2108x660	Munhall, Pa. U5		108x537	Coatesville, Pa. L7
3/4	168x540	Coatesville, Pa. L7	2108x720	Coatesville, Pa. L7	21/4	114x385	SparrowsPt.,Md. B2
34	174x500	Coatesville, Pa. L7 Coatesville, Pa. L7	2110x170 2114x160			114x510	
%	186X4UU	Coatesville, Pa. 127	2114x435	SparrowsPtMd. B2	21/4	120x368	SparrowsPt.,Md. B2
3/4	192x300	Coatesville, Pa. L7 Coatesville, Pa. L7	2114x500 2114x620	Gary, Ind. U5 Munhall, Pa. U5	21/4	120x483	Munhall, Pa. U5
7/8	49x320	Geneva, Utah G1	2114x678	Coatesville, Pa. L7	21/4	126x350	SparrowsPt., Md. B2
7/8	54x380	Geneva, Utah G1 Geneva, Utah G1	2115x128	Harrisburg, Pa. C5	21/4	126x460) Munhall, Pa. U5
7/8 · · · · · · · · · · · · · · · · · · ·	60x360 66x335	Geneva, Utah G1	2120x150 2120x410	SparrowsPt.,Md. B2	21/4	126x650	Coatesville, Pa. L7 SparrowsPt., Md. B2
7/8	72x310	Geneva, Utah G1	2120x480	Gary, Ind. U5	21/4	132x439	Munhall, Pa. U5
¹ / ₈	78x285	Geneva, Utah G1 Geneva, Utah G1	2120x590 2120x675			132x650	
	24x360	Coatesville, Pa. L7	2126x395	SparrowsPt.,Md. B2	21/4	138x420	Munhall, Pa. U5
	24x400 24x420	Munhall, Pa. U5 SparrowsPoint, Md. B2	2126x426 2126x566	Gary, Ind. U5 Munhall, Pa. U5		138x600	
	30x420	Munhall, Pa. U5	2	Coatesville, Pa. L7		144x305	Munhall, Pa. U5
	30x420 32x420	SparrowsPoint, Md. B2 IndianaHarbor, Ind. 1-2	2	SparrowsPt.,Md. B2 Gary,Ind. U5	21/4	144x600	Coatesville, Pa. L7 Sparrows Pt., Md. B2
	36x300	Johnstown, Pa. B2	2	Munhall, Pa. U5	2½ 2½	146x300	
	36x372	IndianaHarbor, Ind. I-2	2132x650	Coatesville, Pa. L7	21/4	156x550	Coatesville, Pa. L7
:	36x420	Coatesville, Pa. L7 SparrowsPoint, Md. B2	2		21/4	162x540	Coatesville, Pa. L7 Coatesville, Pa. L7
	36x500	Munhall, Pa. U5	2138x520	Munhall, Pa. U5	21/4	174x500	Coatesville, Pa. L7
	40x336 42x260	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2	2138x600 2144x345	SparrowsPt.,Md. B2		180x480	
	42x520	Munhall, Pa. U5	2144x360	Gary, Ind. U5	21/4	192x300	Coatesville, Pa. L7
	42x600 44x306	SparrowsPoint, Md. B2 IndianaHarbor, Ind. I-2	2144x500 2144x600			195x225	Geneva, Utah G1
2	48x280	IndianaHarbor, Ind. I-2	2146x340) SparrowsPtMd. B2	2%	54x300	Geneva, Utah G1
2	48x600 48x600	Coatesville,Pa. L7 Munhall,Pa. U5	2148x240 2150x330	Gary,Ind. U5 SparrowsPt.,Md. B2	2 % 2 %	60x285	Geneva, Utah G1 Geneva, Utah G1
3	48x720	Gary, Ind. U5	2	Munnall, Pa. US	2 %	72x245	Geneva, Utah G1
	48 \chi_6 x 37		2150x550 2156x550	Coatesville, Pa. L7 Coatesville, Pa. L7	2 1/2	78x225	Geneva, Utah G1 Coatesville, Pa. L7
	49x300	Geneva, Utah G1	2162x540	Coatesville, Pa. L7	21/2	32x336	IndianaHarbor,Ind. I-2
2	52x260 54x355	IndianaHarbor,Ind. I-2 Geneva,Utah G1	2	Coatesville, Pa. L7 Coatesville, Pa. L7	$2\frac{1}{2}$	36x240	Johnstown, Pa. B2 Indiana Harbor, Ind. I-2
	54x375	Johnstown, Pa. B2	2	Coatesville, Pa. L7	2½	36x585	Coatesville, Pa. L7
	54x570	SparrowsPoint, Md. B2	2186x400 2192x300	Coatesville, Pa. L7	2½	40x270	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2
2	54x660 54x720	Munhall, Pa. U5 Coatesville, Pa. L7	2	Coatesville, Pa. L7	2½	42x242	IndianaHarbor, Ind. I-2
	54x720	Gary, Ind. U5	21/849x285	Geneva, Utah G1 Geneva, Utah G1	2½ 2½		IndianaHarbor, Ind. I-2 Coatesville, Pa. L7
2	56x240	IndianaHarbor,Ind. I-2 IndianaHarbor,Ind. I-2	21/4	Geneva, Utah G1		48x600	Munhall, Pa. U5
2	60x335	Geneva, Utah G1	21/8	Geneva, Utah G1	21/2	48x720	Garv.Ind. U5
2	60x350	Johnstown, Pa. B2 SparrowsPoint, Md. B2	2 ½	Geneva, Utah G1 Geneva, Utah G1	2½ 2½	48 18 x31	2 Johnstown, Pa. B2 Geneva, Utah G1
2	60x720	Coatesville, Pa. L7	2 ½24x600	Coatesville,Pa. L7	2½	52x207	IndianaHarbor, Ind. I-2
	60x720 60x720	Gary, Ind. U5 Munhall, Pa. U5	2¼32x372 2¼36x330	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	2½ 2½	54x285	Geneva, Utah G1
	64x211	IndianaHarbor, Ind. I-2	2¼36x585	Coatesville, Pa. L7	2½	54x600	Johnstown, Pa. B2 Munhall, Pa. U5
	66x310 66x325	Geneva, Utah G1 Johnstown, Pa. B2	2¼	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2		54x720	Coatesville, Pa. L7 Gary, Ind. U5
2	66x720	Coatesville.Pa. L7	2¼48x249	IndianaHarbor,Ind. I-2	21/2	56x192	IndianaHarbor, Ind. I-2
	66x720	Gary, Ind. U5 Munhall. Pa. U5	2½48x600 2½48x600	Coatesville, Pa. L7 Munhall, Pa. U5	2½	60x180	Indiana Harbor, Ind. 1-2 Geneva, Utah G1
2	66x720	SparrowsPoint, Md. B2	21/449x270	Geneva, Utah G1	21/2	60x2S0	Johnstown, Pa. B2
		IndianaHarbor, Ind. I-2	2½	IndianaHarbor,Ind. I-2 Geneva,Utah G1		60x600	Munhall, Pa. U5
	72x188	IndianaHarbor,Ind. I-2 Geneva,Utah G1	2½54x315 2½54x600	Munhall, Pa. U5	2½	60x660	SparrowsPoint, Md. B2 Coatesville, Pa. L7
	72x300	Johnstown, Pa. B2	2¼	Coatesville, Pa. L7	21/2	60x720	Gary, Ind. U5 Indiana Harbor, Ind. 1-2
	72x680	SparrowsPoint, Md. B2 Coatesville, Pa. L7		IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	2½ 2½	64x168	IndianaHarbor, Ind. I-2 Geneva, Utah G1
	72x720	Gary, Ind. U5	2¼60x300	Geneva, Utah G1	21/2	66x252	Johnstown, Pa. B2
	72x720	Munhall,Pa. U5 IndianaHarbor,Ind. I-2	2¼	Munhall, Pa. U5 Coatesville, Pa. L7	2½	66x600	Munhall, Pa. U5 SparrowsPoint, Md. B2
	78x270	Geneva, Utah G1	2½60x730	SparrowsPoint, Md. B2	2½	66x680	Coatesville, Pa. L7
	78x280	Johnstown, Pa. B2	2½	IndianaHarbor,Ind. I-2 Geneva,Utah G1	2½	66x680	Gary, Ind. U5 Indiana Harbor, Ind. I-2
	78x635	SparrowsPoint, Md. B2 Coatesville, Pa. L7	2¼	Munhall, Pa. U5	21/2	72x150	IndianaHarbor, Ind. I-2
	78x720	Gary, Ind. U5	2¼66x665	SparrowsPoint,Md. B2 Coatesville,Pa. L7	21/2	72x230	Geneva. Utah G1
* * * * * * * * * * * * * * * * * * * *	78x720	Munhall, Pa. U5 Indiana Harbor, Ind. I-2		IndianaHarbor, Ind. 1-2	21/2	72x234	Johnstown, Pa. B2 SparrowsPoint, Md. B2
	84x160	IndianaHarbor, Ind. 1-2	2¼72x166	IndianaHarbor,Ind. I-2 Geneva,Utah G1	21/2	72x598	Munhall, Pa. U5
	84x180	Fontana, Calif. K1	2¼72x260	Geneva, Otan GI	472	72x680	Coatesville, Pa. L7

muary 15, 1951



Hot-Rolled Plates, Sheared_____

	1441.411			Width,			Width,	
Thick	Width, ness Max. Lengt	h	Thickness	Max. Lengt	th	Thick (inch		Mill Point, Producer
linch	es) (inches)	Mill Point, Producer	(inches)	(inches)	Mill Point, Producer Coatesville, Pa. L7		90x477	Munhall, Pa. U5
21/4		Gary, Ind. U5	2%	72x616	IndianaHarbor, Ind. I-2	3	90x720	Coatesville.Pa. L7
21/4		IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	28,	78x141	Fontana, Calif. K1	. 3	92x98	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2
216	78x215	Geneva, Utah G1	284	78x460 78x720	SparrowsPoint, Md. B2 Coatesville, Pa. L7		94x94	Johnstown, Pa. B2
21/9		SparrowsPoint, Md. B2 Gary, Ind. U5	200	80x122	IndianaHarbor, Ind. I-2	3	96x345	SparrowsPoint, Md. B2
2.0	006x<7006x<7	Munhall, Pa. U5	28,	84x117	IndianaHarbor, Ind. I-2 SparrowsPoint, Md. B2	3	96x405	Gary, Ind. U5 Munhall, Pa. U5
212		Coatesville, Pa. L7	23.	84x430 84x720	Coatesville, Pa. L7	3	96x448 96x720	Coatesville, Pa. L7
- 12		IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	28,		IndianaHarbor, Ind. I-2 SparrowsPoint, Md. B2	3	102x138	Johnstown, Pa. B2 SparrowsPt., Md. B2
210		Fontana, Calif. K1	- 1	90x400 90x720	Coatesville, Pa. L	7 3 .	102x385	Gary, Ind. U5
510		Johnstown, Pa. B2 SparrowsPoint, Md. B2	1 28,	92x106	IndianaHarbor, Ind. 1-2	2 3 .		Munnan, Pa. Us
21,		Gary, Ind. U5	28,	94x104	IndianaHarbor, Ind. I-SparrowsPoint, Md. B		102x720	
230	54x600	Munhall, Pa. U5	28	,96x720	Coatesville, Pa. L	7 3 .		Johnstown, Pa. B2
210		Coatesville, Pa. L7 Indiana Harbor, Ind. 1-2	20,	102x350	SparrowsPt.,Md. B: Coatesville,Pa. L'	2 3	108x305	SparrowsPt.,Md. B2 Gary,Ind. U5
21,		Johnstown, Pa. B2	200	102x720	SparrowsPtMd. B			Munhall, Pa. U5
219	90x440 90x520	SparrowsPoint, Md. B2 Gary, Ind. U5	93,	1.08x720	O Coatesville, Pa. Li	7 3 .	108x720	Coatesville, Pa. L7 Johnstown, Pa. B2
215		Munhall, Pa. U5	254	114x31	Coatesville, Pa. L'	7 3	114x290	SparrowsPt., Md. B2
234		Coatesville, Pa. L7	28,	120x300) SparrowsPt., Md. Ba	2 3 .	114×34(Gary, Ind. Up
21.	92x112	Indiana Harbor, Ind. I-2 Indiana Harbor, Ind. I-2	2%,	120x67	Coatesville, Pa. L' Sparrows Pt., Md. B		114x376	Coatesville, Pa. L7
21.	96x177	Johnstown.Pa. B2	28,	126x65	U Coatesvine, Pa. L	7 3		SparrowsPt., Md. B2
210	96x410 96x490	SparrowsPoint, Md. B2 Gary, Ind. U5	2) SparrowsPt., Md. B:	2 3 .	120x325	Gary, Ind. U5 Munhall, Pa. U5
21.,		Munhall, Pa. U5	23,	132x65	O SparrowsPt., Md. B.	2 3.	120x675	Coatesville, Pa. L7
21		Coatesville, Pa. L7	28,	,,138x60	0 Coatesville, Pa. L'	7 . 3 .	126x26(SparrowsPt., Md. B2
210			28,	144x25	O SparrowsPt.,Md. B: Coatesville,Pa. L	7 3 .	126x310	Munhall, Pa. U5
21,		Gary.Ind. U5	2	146x24	5 SparrowsPt.,Md. B:	2 3 .		Coatesville, Pa. L7
21.		Munhall, Pa. U5	98,	150x55	O Coatesville, Pa. L' Coatesville, Pa. L'			SparrowsPt.,Md. B2 Gary,Ind. U5
210	104×155	Johnstown, Pa. B2	Z	156x55	O CUALESVIIIE, I a. II	7 3 .		Munhall, Pa. U5
21,		Johnstown, Pa. B2 Sparrows Pt., Md. B2	2",	168x54	0 Coatesville, Pa. L.			Coatesville, Pa. L7 SparrowsPt., Md. B2
210	108x437	Gary.Ind. U5	2	180x48	 Coatesville, Pa. L' 	7 3 .	138x280	Gary, Ind. U5
210	10×x4×	Munhall, Pa. U5	28,	186x40	U Coatesville, Pa. L	7 3 .		Munhall, Pa. U5 Coatesville, Pa. L7
21.		Johnstown, Pa. B2	23,	195x22 49x210	5 Coatesville.Pa. L	7 3.	144x23(SparrowsPt., Md. B2
210		5 SparrowsPt.,Md. B2	27,	49x210	Geneva, Utah G Geneva, Utah G			
210	114x41(Gary, Ind. U5 Munhall.Pa. U5	278	60x235	Geneva, Utah G	1 3 .	144x600	Coatesville, Pa. L7
01.		5 Coatesville, Pa. L7	27	66x215		1 3 .		SparrowsPt., Md. B2 Coatesville, Pa. L7
21.	120x336	SparrowsPt.,Md. B2 Gary,Ind. U5		24x560	Coatesville, Pa. L	7 3.		Coatesville.Pa. L7
240		1 Munhall, Pa. U5	3	32x276	IndianaHarbor, Ind. I-			
21.	120x67	Coatesville, Pa. L7	3	36x205	Johnstown, Pa. B Indiana Harbor, Ind. I-	2 3 .		Coatesville, Pa. L7
215	126x38	Gary, Ind. U5	3	36x570	Coatesville, Pa. L	7 3.		Coatesville, Pa. L7 Coatesville, Pa. L7
21		2 Munhall, Pa. U5	1 3	40x224 42x202	IndianaHarbor, Ind. I- Johnstown, Pa. B	2 3 .		Coatesville, Pa. L7
21,		O SparrowsPt., Md. B2	3	44x204	IndianaHarbor, Ind. I-	2 3 .	195x22a	
21,		Gary, Ind. U5	3	48x186	IndianaHarbor, Ind. 1-			Coatesville, Pa. L7 Coatesville, Pa. L7
21.		0 Coatesville, Pa. L7	3	48x600	Munhall, Pa. U	5 314	48x520	Coatesville, Pa. L7
210		5 SparrowsPt.,Md. B2	3	48x720	Gary, Ind. U Gary, Ind. U Gary, Ind. U		60x576	Coatesville, Pa. L7 Coatesville, Pa. L7
210		4 Munhall.Pa. U5	3	48 1 x249x200	Geneva, Utah G	1 314	66x141	Fontana Calif. K1
210		0 Coatesville, Pa. L7	3	52x173	IndianaHarbor,Ind. I- Geneva,Utah G	2 3 4 3 4		Coatesville, Pa. L7 Coatesville, Pa. L7
210	144x27	o Gary.Ird. U5	3	54x268	Johnstown, Pa. B	2 31/4		Coatesville, Pa. L7
21,	144x35	9 Munhall.Pa. U5	3	54x600	Munhall,Pa. U Gary,Ind. U	5 3 4 5 3 4		Coatesville, Pa. L7 Coatesville, Pa. L7
216	144x60	 SparrowsPtMd. B2 	3	54x692	Coatesville, Pa. L	7 314	96x720	Coatesville.Pa. L7
21.		0 Coatesville, Pa, L7	3	56x160	IndianaHarbor,Ind. I- IndianaHarbor,Ind. I-	2 314		Coatesville, Pa. L7 Coatesville, Pa. L7
21,		 Coatesville, Pa. L7 Coatesville, Pa. L7 	3	60XZZ5	Geneva, Utah G	1 314		Coatesville.Pa. L7
21,		U Coatesville, Fa. Li		60x240				
210		Coatesville, Pa. L7Coatesville, Pa. L7	3	60x600	Munhall, Pa. U	5 314		Coatesville, Pa. L7
21.	180x48	0 Coatesville.Pa. L7	3	60x624	Coatesville, Pa. L	7 314		Coatesville, Pa. L7
21		() Costesville, Pa. 1.7	3	64x141	IndianaHarbor, Ind. I-	2 314		Coatesville, Pa. L7
250				66x210	Geneva, Utah G Johnstown, Pa. B	1 314	156x550	Coatesville.Pa. L7
250	COMPER	Geneva, Utah G1 Geneva, Utah G1	3	66x220 66x500	SparrowsPoint, Md. B Coatesville, Pa. L	2 314		Coatesville, Pa. L7
25		Geneva, Utan Gi		66x564	Coatesville, Pa. L Gary, Ind. U	7 314		Coatesville, Pa. L7
250		Geneva, Utan Gi		66x580	Munhall, Pa. U	5 31,		Coatesville, Pa. L7 Coatesville, Pa. L7
9.97		Coatesville, Pa. L7	3		! Indiana Harbor, Ind. 1-	2 314	192x24	Coatesville, Pa. L7
2%	32x306	IndianaHarbor, Ind. I-2 IndianaHarbor, Ind. I-2	3	72x125 72x140 72x199	Fontana, Calif. K	1 31.	195x195	Coatesville, Pa. L7 Coatesville, Pa. L7
2% 2% 2%		COSTESVIIIE, Pa. La	3	72x199	Johnstown, Pa. B SparrowsPoint, Md. B	2 312		Johnstown, Pa. B2
2%	40x244	Indiana Harbor, Ind. 1-2	3	72x460	Gary, Ind. U	5 312		Coatesville, Pa. L7
2%	44x222	Illulaliariar bor, risk. x-a	3	72x530 72x564 72x596	Gary, Ind. U Coatesville, Pa. L Munhall, Pa. U	312		Johnstown, Pa. B2 Coatesville, Pa. L7
2%		Coatesvine, Fa. Li		76x112	IndianaHarbor, ind. 1-	2 31.		Munhall, Pa. U5
2%	49x220	IndianaHarbor, Ind. 1-2	3	78x191	Johnstown,Pa. B		4S ₁ ,x2	Gary, Ind. U5 12 Johnstown, Pa. B2
2 %	54x260	Geneva, Utah G1 Coatesville, Pa, L7	3	78x420) Gary, Ind. U	5 , 312		Johnstown, Pa. B2 Munhall, Pa. U5
2%		IndianaHarbor, Ind. 1-2	3	78x550	Munhall, Pa. U	312		Munhall, Pa. U5 Gary, Ind. U5
2%	60x164	IndianaHarbor, Ind. I-2	3	80x112	! IndianaHarbor.Ind. 1-	2 312	54 x 592	Coatesville, Pa. L7
2%	60x600	Sparrowsromit, mu. 134	3	84x107	Indiana Harbor, Ind. I-	2 316	60x195	Johnstown, Pa. B2 SparrowsPoint, Md. B2
2%			3	84x170	SparrowsPoint, Md. B	3 3 1/2		SparrowsPoint, Md. B2 Coatesville, Pa. L7
2 % 2 %		Geneva, Utah G1	3	84x460	Gary, Ind. U	5		Gary, Ind. U5 Munhall, Pa. U5
2%	G#GX00,,,,,,,,,,	SparrowsForm, Mu. 152	3 ,	84x511	Munhall, Pa. U Coatesville, Pa. L	7 316		Fontana, Calif. K1
2 % 2 %		IndianaHarbor, Ind. I-2	3	88x102	IndianaHarbor, Ind. I-	2 3 2		Johnstown, Pa. B2 SparrowsPoint, Md. B2
2% 2%		IndianaHarbor, Ind. I-2	3	90x164	SparrowsPoint, Md. B	2 312	66x484	Coatesville, Pa. L7
2%		SparrowsPoint, Md. B2	3	90x430	Gary, Ind. U	5 3 12	66x500	, Gary, Ind. U5



Hot-Rolled Plates, Sheared

CONTINUED FROM PRECEDING PAGE

	Width,		l	Width,				Width.	
	kness Max. Lengtl		Thickness	Max. Lengt			Thickness	Max. Lengtl	
(incl		Mill Point, Producer	(inches)	(inches)	Mill Point, Produ		(inches)	(inches)	Mill Point, Producer
3 1/2		Munhall, Pa. U5 Johnstown, Pa. B2		168x470					SparrowsPoint, Md. B2
312		SparrowsPoint, Md, B2		174x455	Coatesville, Pa.			78x365	Gary, Ind. U5
3 1/2	72x460	Gary, Ind. U5		180x440	Coatesville, Pa.			78x406	Munhall, Pa. U5
1 3 1/2		Coatesville, Pa. L7		192x240	Coatesville, Pa. Coatesville, Pa.			78x720	Coatesville, Pa. L7
3 1/2	72x507	Munhall,Pa, U5		195x195	Coatesville, Pa.			84x128	Johnstown, Pa. B2 SparrowsPoint, Md. B2
3 1/2		Johnstown, Pa. B2		24x450	Coatesville, Pa.			84x340	Gary, Ind. U5
3 1/2		SparrowsPoint, Md. B2		36x455	Coatesville, Pa.			84x377	Munhall, Pa. U5
3 1/2	78x430	Gary, Ind. U5		48x450	Coatesville, Pa.			84x720	Coatesville.Pa. L7
3 1/2		Munhall,Pa. U5		54x552	Coatesville, Pa.			90x110	Johnstown, Pa. B2
3 1/2		Coatesville,Pa. L7		60x134	Fontana, Calif.			90x275	SparrowsPoint, Md. B2
3 1/2	84x144	Johnstown, Pa. B2		60x500	Coatesville,Pa.			90x315	Gary, Ind. U5
3 1/2	84x335	SparrowsPoint, Md. B2	3 %	66x452	Coatesville,Pa.			90x352	Munhall, Pa. U5
3 1/2	84x400	Gary, Ind. U5		72x452	Coatesville, Pa.			90x720	Coatesville, Pa. L7
3 1/2	84x434	Munhall,Pa. U5 Coatesville,Pa. L7		78x720	Coatesville, Pa.			96x113	Johnstown, Pa. B2
3 1/2	90x131	Johnstown.Pa. B2		84x720 90x720	Coatesville, Pa.				SparrowsPoint, Md. B2
3 1/3		SparrowsPoint, Md. B2	3 %	96x720	Coatesville, Pa.			96x300	Gary, Ind. U5 Munhall, Pa. U5
316	90x370	Gary, Ind. U5		102x720	Coatesville, Pa.			96x720	Coatesville, Pa. L7
3 1/2	90x405	Munhall.Pa. U5		108x690	Coatesville, Pa.			102x240	SparrowsPt., Md. B2
31/2	90x720	Coatesville, Pa. L7		114x650	Coatesville.Pa.			102x285	Gary, Ind. U5
31/2	96x125	Johnstown, Pa. B2		,120x615	Coatesville, Pa.			102x311	Munhall, Pa. U5
3 1/2	96x295	SparrowsPoint, Md. B2	3 %	126x590				102x685	Coatesville, Pa. L7
3 1/2	96x350	Gary,Ind. U5		132x565	Coatesville,Pa.		4	108x230	SparrowsPt.,Md. B2
3 1/2	96x380	Munffall,Pa. U5		138x540				108x265	Gary, Ind. U5
3 1/2	96x720	Coatesville, Pa. L7		144x520				108x293	Munhall, Pa. U5
3 1/2		Johnstown, Pa. B2		150x490				108x650	Coatesville, Pa. L7
3 1/2		SparrowsPt.,Md. B2 Gary,Ind. U5		156x480				114x215	SparrowsPt.,Md. B2
3 14		Munhall.Pa. U5		162x460				114x245	Gary, Ind. U5 Munhall, Pa. U5
31/6	102x720	Coatesville, Pa. L7	3 %	174x425				114x610	Coatesville, Pa. L7
314	104x112	Johnstown,Pa, B2		180x410				120x205	SparrowsPt.,Md. B2
3 1/2				186x300				120x235	Gary, Ind. U5
3 1/2	108x310	Gary, Ind. U5	3 %	192x240	Coatesville, Pa.	L7 4		120x263	Munhall, Pa. U5
312	108x337	Munhall, Pa. U5		195x195			4	120x575	Coatesville, Pa. L7
3 1/2	108x720			24x420	Coatesville, Pa.			126x195	SparrowsPt.,Md. B2
3 1/2				36x155	Johnstown, Pa.			126x225	Gary, Ind. U5
3 1/2	114x290			36x425	Coatesville, Pa. Johnstown, Pa.			126x251	Munhall, Pa. U5
31/2			4	48x420	Coatesville.Pa.			126x550	Coatesville, Pa. L7 SparrowsPt., Md. B2
3 1/2		SparrowsPt.,Md. B2		48x550	Gary, Ind.			132x185	Gary, Ind. U5
3 1/2	120x275		4		Munhall,Pa.			132x239	Munhall.Pa. U5
3 1/2	120x304	Munhall.Pa. U5		48 \ x19				132x530	Coatesville, Pa. L7
3 1/2	120x660			54x196	Johnstown, Pa.	B2 /		138x180	SparrowsPt.,Md. B2
3 1/2	126x225			54x487	Munhall, Pa.			138x200	Gary, Ind. U5
3 1/2	126x260			54x505	Gary, Ind.			138x228	Munhall, Pa. U5
31/2	126x289	Munhall, Pa. U5		54x520	Coatesville, Pa.			138x500	Coatesville, Pa. L7
3 1/2	126x635			60x126	Fontana, Calif.			144x175	SparrowsPt.,Md. B2
3 1/2	132x215			60x174	Johnstown, Pa. SparrowsPoint, Md.			144x180	Gary, Ind. U5 Munhall, Pa. U5
3 1/2				60x410	Gary, Ird.			144x485	Coatesville.Pa. L7
31/2			4	60x468	Coatesville, Pa.			146x170	SparrowsPt.,Md. B2
316				60x528	Munhall.Pa.			150x460	Coatesville, Pa. L7
3 1/2	138x235			66x164	Johnstown.Pa.			156x450	Coatesville, Pa. L7
3 1/2	138x264			66x375	SparrowsPoint, Md.			162x430	Coatesville, Pa. L7
3 1/2	138x575	Coatesville, Pa. L7		66x424	Coatesville, Pa.			168x410	Coatesville, Pa. L7
3 1/2	144x195			66x430	Gary, Ind.	U5 '		174x400	Coatesville, Pa. L7
3 1/2	144x220			66x481	Munhall.Pa.			180x385	Coatesv'lle.Pa. L7
3 1/2	144x253	Munhall, Pa. U5		72x151	Johnstown.Pa.			186x270	Coatesville.Pa. I.7
3 1/2	144x550			72x345	SparrowsPoint, Md.			192x240	Coatesville Pa. L7
3 1/2	146x190			72x395	Gary, Ind. Coatesville, Pa.		*	195x195	Coatesville, Pa. L7
31/2				72x441	Munhall Pa.			-	

3½ 1.32x600 3½ 1.38x205 3½ 1.38x205 3½ 1.38x225 3½ 1.38x264 3½ 1.38x575 3½ 1.44x220 3½ 1.44x253 3½ 1.44x253 3½ 1.44x550 3½ 1.46x190 3½ 1.50x525 3½ 1.50x525 3½ 1.50x525 4.50x525 4.50x5	Coatesville, Pa. L7 SparrowsPt., Md. B2 Gary, Ind. U5 Munhall, Pa. U5 Coatesville, Pa. L7 SparrowsPt., Md. B2 Gary, Ind. U5 Munhall, Pa. U5 Coatesville, Pa. L7 SparrowsPt., Md. B2 Coatesville, Pa. L7 Coatesville, Pa. L7	4 60x488 4 60x528 4 66x364 4 66x375 4 66x424 4 66x430 4 66x481 4 72x151 4 72x345 4 72x424 4 72x421 4 78x137	Gary,Ind. U5 Coatesville,Pa. L7 Munhall Pa. U5 Johnstown,Pa. B2	4	Coatesville, Pa. L7
Width, Thickness (inches) (Mill Point, Producer Johnstown, Pa. B2 Youngstown U5	Width, Max. Length (inches) (inches)	Mill Point, Producer Clairton,Pa. US So. Chicago, Ill. US SanFrancisco B3 Clairton,Pa. US Clairton,Pa. US So. Chicago, Ill. US Clairton,Pa. US Clairton,Pa. US So. Chicago, Ill. US Clairton,Pa. US Johnstown,Pa. US Johnstown,Pa. US So. Chicago, Ill. US So. Chicago, Ill. US So. Chicago, Ill. US So. Chicago, Ill. US SparrowsPoint, Md. B2 Minneall,Pa. US Minneaqua, Colo. Cilo Johnstown,Pa. B2 Seattle B3 Munhall,Pa. US SparrowsPoint, Md. B2 So. Chicago, Ill. US SparrowsPoint, Md. B2 So. Chicago, Ill. US SparrowsPoint, Md. B3 So. Chicago, Ill. US SparrowsPoint, Md. B2 Seattle B3 So. Chicago, Ill. US SparrowsPoint, Md. B2 Seattle B3 So. Chicago, Ill. US SparrowsPoint, Md. B2	Width, Width, Max. Length (inches) (inches	Mill Point, Producer Seattle B:3 Munhall, Pa. U5 Fontana, Calif. K1 Johnstown, Pa. B2 Seattle B:3 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Seattle B:3 Munhall, Pa. U5 Seattle, B:3 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2 IndianaHarbor, Ind. 1-2 Johnstown, Pa. B2 So.Chicago, Ill. U5 SparrowsPoint, Md. B2
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Hot-Rolled Plates, Universal CONTINUED FROM PRECEDING PAGE

	Width,			Width,			Width,	
Thickness (inches)	Max. Length (inches)	Mill Point, Producer	Thickness (inches)		Mill Point, Producer	Thickness (inches)	Max. Length (inches)	Mill Point, Producer
1/4	27x1080	Munhall, Pa. U5	5	24x1200	So.Chicago, Ill. U5	%	21x1068	Seattle B3
1/4	28x900 28x1020	Johnstown, Pa. B2 So. Chicago, Ill. U5	5	24x1440 25x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	3/8	21x1200 22x960	Munhall,Pa. U5 Johnstown,Pa. B2
1/4	28x1440 29x1080	SparrowsPoint,Md. B2 Munhall,Pa. U5	18	26x780 26x960	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2	3/8	22x1008 22x1320	So.Chicago, Ill. U5
1/4	30x900	Johnstown, Pa. B2	18	26x1200	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	3/2	22x1440 23x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
1/4	30x960 30x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	5	26x1440 27x1200	Munhall, Pa. U5	3/8	24x960	Johnstown, Pa. B2
	31x1080 32x720	Munhall, Pa. U5 Johnstown, Pa. B2	16	28x960 28x1140	Johnstown, Pa. B2 So. Chicago, Ill. U5	3/8	24x1320 24x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
1/4	32x1440 33x720	SparrowsPoint,Md. B2 Munhall,Pa. U5	le · · · ·	28x1440 29x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	3/8	25x1200 26x780	Munhall, Pa. U5 Indiana Harbor, Ind. I-2
34	34x720	Johnstown, Pa. B2	42	30x960 30x1080	Johnstown, Pa. B2	8/8	26x960 26x1320	Johnstown, Pa. B2 So Chicago, Ill. U5
1/4	34x1440 36x600	SparrowsPoint,Md. B2 Munhall,Pa. U5	200	30x1440 31x1200	So. Chicago, Ill. U5 SparrowsPoint, Md. B2 Munhall, Pa. U5	3/6	26x1440 27x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
1/4	36x720 36x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1g	32x960	Johnstown, Pa. B2	1 S/ ₄	28x960	Johnstown, Pa. B2
1/4	38x1440 40x1200	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	TE	32x1440 33x1080	SparrowsPoint, Md. B2 Munhall, Pa. U5	%	28x1260 28x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
1/4	42x1200 44x1200	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	18 · · · ·	34x960 34x1440	Johnstown, Pa. B2 Sparrows Point, Md. B2	3%	29x1200 30x960	Munhall,Pa. U5 Johnstown,Pa. B2
1/4	46x1200	SparrowsPoint, Md. B2	50	36x960 36x1080	Johnstown, Pa. B2 Munhall, Pa. U5	1 %	30x1200 30x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
1/4	48x360 50x360	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	1g	36x1440 37x1080	SparrowsPoint,Md. B2 Munhall,Pa. U5	3/8	31x1200 32x960	Munhall, Pa. U5 Johnstown, Pa. B2
1/4	52x360 54x360	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	TR	38x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	%	32x1440	SparrowsPoint, Md. B2
1/4	56x360 58x360	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	Ya	39x960 40x1200	SparrowsPoint, Md. B2	78 3/8	33x1200 34x960	Munhall,Pa. U5 Johnstown,Pa. B2
74-1	16x360	Farrell,Pa. S3	16	42x1200	Munhall, Pa. U5 SparrowsPoint, Md. B2	3%	34x1440 36x960	SparrowsPoint,Md. B2 Johnstown,Pa. B2
1,4-2	22x360 18x24	Lowellville, O. 33 So. Chicago, Ill. W14	Įg	43x720 44x1200	Munhall, Pa. U5 SparrowsPoint, Md. B2	3/8	36x1200 36x1440	Munhall,Pa. U5 SparrowsPoint,Md. B2
	r30x360 37510 to 15	Economy,Pa. B14 x 360 Youngstown U5	16	45x600 46x1200	Munhall, Pa. U5 SparrowsPoint, Md. B2	3/8	37x1200 38x1440	Munhall, Pa. U5
.251375	20¼x—	Weirton, W. Va. W6	7	48x960 50x960	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	3/8	39x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5 SparrowsPoint,Md. B2
	6 ½ x1200 6 ½ x960 6 ½ x1080	So.Chicago, Ill. U5 Johnstown, Pa. B2		52x960	SparrowsPoint, Md. B2	3/8	40x1440 41x1200	Munhall, Pa. U5
18	$6\frac{1}{2}$ x 1080 $6\frac{1}{2}$ x 1080	Clairton, Pa. U5 Clairton, Pa. U5	18	54x960 56x480	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	3/8	42x1440 43x1080	SparrowsPoint, Md. B2 Munhall, Pa. U5
16	6½ x1320 6¾ x1080	So.Chicago,Ill. U5 Clairton,Pa. U5		58x480 60x360	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	3/8 3/8	44x1440 45x1080	SparrowsPoint,Md. B2 Munhall,Pa. U5
5	7x960	Seattle B3	3/8	6½x1200 6½x960	So. Chicago, Ill. U5 Johnstown, Pa. B2	8/9	46x1440 48x1200	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
16	7x1080 7x1320	Clairton, Pa. U5 So. Chicago, Ill. U5		6½ x1080 6½ x1080	Clairton, Pa. U5 Clairton, Pa. U5	3/8	50x1200 52x1200	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
	7½ x1080 7½ x1080	Clairton, Pa. U5 Clairton, Pa. U5	3/8	6½x1320	So. Chicago, Ill. U5	8	54x1200	SparrowsPoint, Md. B2
18 · · · · ·	7½x1320 7¾x1080	So. Chicago, Ill. U5 Clairton, Pa. U5	%	6 % x1080 7x1080	Clairton, Pa. U5 Clairton, Pa. U5	3/8	56x960 58x960	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
5 · · · · ·	8x960	Johnstown, Pa. B2	3/8	7x1140 7x1320	So. Chicago, Ill. U5	%	60x480	SparrowsPoint, Md. B2
18	8x960 8x1080	Seattle B3 Clairton,Pa. U5	%	7½ x1080 7½ x1080	Clairton, Pa. U5 Clairton, Pa. U5	.376437.	19½ x—	Weirton, W. Va. W6
5	8x1320 8¼x1080	So.Chicago,Ill. U5 Clairton,Pa. U5	%	7½ x1320 7¾ x1080	So. Chicago, Ill. U5 Clairton, Pa. U5	7 16 J.	6½x1200 6⅓x960	So. Chicago, Ill. U5 Johnstown, Pa. B2
18 ····	8½ x1080 8½ x1320	Clairton, Pa. U5 So. Chicago, Ill. U5	3/8	8x960 8x960	Johnstown,Pa. B2 Seattle B3	130	6½ x1080 6½ x1080	Clairton,Pa. U5 Clairton,Pa. U5
5	9x960	Clairton,Pa. U5 Seattle B3	3/8	8x1080	Clairton,Pa. U5	16	6½x1320	So. Chicago, Ill. U5
16	9x10S0	Clairton, Pa. U5	%	8x1320	So. Chicago, Ill. U5 SanFrancisco B3	77	6 % x1080 7x1068	Clairton,Pa. U5 Clairton,Pa. U5
र्षेत्र	9x1320 9 ¼ x1080	So.Chicago,Ill. U5 Clairton,Pa. U5	36	8½ x1080 8½ x1080	Clairton, Pa. U5 Clairton, Pa. U5	7,	7x1140 7x1320	So. Chicago, Ill. U5
20,	932x10S0 912x1320	Clairton,Pa. U5 So.Chicago,Ill. U5	3/2	8½x1320 8¾x1080	So. Chicago, Ill. U5 Clairton, Pa. U5	70	7½ x1068 7½ x1068	Clairton, Pa. U5 Clairton, Pa. U5
75	9 34 x10 s0 10 x 9 6 0	Clairton, Pa. U5 Johnstown, Pa. B2	3/8	9x960 9x1080	Seattle B3 Clairton,Pa. U5	16	$7\frac{1}{2}$ x13207 $\frac{3}{4}$ x1056	So. Chicago, Ill. U5 Clairton, Pa. U5
,P.,	10x960 10x1080	Seattle B3 Clairton,Pa. U5	3/6	9x1320 9¼x1080	So. Chicago, Ill. U5 Clairton, Pa. U5		8x960 8x960	Johnstown, Pa. B2 Seattle B3
18	1UX132U	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	%	9½x1080	Clairton, Pa. U5 So. Chicago, Ill. U5	1,6	8x1056	Clairton, Pa. U5 So. Chicago, Ill. U5
5	10x1440 11x960	Seattle B3	3/3	9 ½ x1320 9 ¼ x1080	Clairton, Pa. U5	18	8x1320 8¼x1044	Clairton, Pa. U5
18 · · · ·	11x1200 12x840	Munhall,Pa. U5 Minnequa,Colo. C10	3/8	10x960 10x960	Johnstown, Pa. B2 Seattle B3	7	8½x1044 8½x1320	Clairton,Pa. U5 So.Chicago,Ill. U5
5	12x960 12x960	Johnstown, Pa. B2 Seattle B3	% ····	10x1080	Clairton, Pa. U5 So. Chicago, Ill. U5	र्षेष्ठ	8 % X1044	Clairton,Pa. U5 Seattle B3
16 16	12x1320 12x1440	So. Chicago, Ill. U5 Sparrows Point, Md. B2	% ····	10x1440 11x720	SparrowsPoint, Md. B2 Seattle B3	18	9x1032	Clairton, Pa. U5 So. Chicago, Ill. U5
-P	I3X96U	Seattle B3 Munhall Pa. U5	3/8	11x1200 12x720	Munhall,Pa. U5 Seattle B3	1 te	9 ½ x1032	Clairton, Pa. U5 Clairton, Pa. U5
	13x1200 14x960	Johnstown, Pa. B2 Seattle B3	3/2	12x840 12x960	Minnequa, Colo. C10 Johnstown, Pa. B2		9½ x1320 9¾ x1020	So. Chicago, Ill. U5 Clairton, Pa. U5
16	14x960 14x1320	So. Chicago, Ill. U5	3/2	12x1320	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	170	,10x720	Seattle B3 Johnstown,Pa. B2
16 · · · · ·	14x1440	SparrowsPoint, Md. B2 Seattle B3	9/8 0000	12x1440 13x720	Seattle B3	76 16	10x960 .,10x1020	Clairton, Pa. U5
16 · · · · ·	16x252	Munhall, Pa. U5 Fontana, Calif. K1	3/8	13x1200 14x960	Munhall,Pa. U5 Johnstown,Pa. B2	J	10x1320 10x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
16	16x960 16x960	Johnstown, Pa. B2 Seattle B3	3/8	14x1104 14x1320	So.Chicago, Ill. U5	16	11x720 /.11x1200	Seattle B3 Munhall,Pa. U5
42	16x1320 16x1440	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	3/8	14x1440 15x1032	SparrowsPoint,Md. B2 Seattle B3	13	121000	Minnequa, Colo. C10 Johnstown, Pa. B2
16	17x960 17x1200	Seattle B3 Munhall, Pa. U5	3%	15x1200 16x252	Munhall, Pa. U5 Fontana, Calif. K1	18 7	12x1104 12x1104 12x1320	Seattle B3 So. Chicago, Ill. U5
18 · · · ·	18x720	Seattle B3 Johnstown, Pa. B2	86	16x960 16x960	Johnstown,Pa. B2 Seattle B3			SparrowsPoint, Md. B2 Seattle B3
Ig	18x960	So. Chicago, Ill. U5	3/8	16x1320	So. Chicago, Ill. U5	16 · · · · · · · · · · · · · · · · · · ·	13x1200	Munhall, Pa. U5
16 15	18x1440 19x720	SparrowsPoint, Md. B2 Seattle B3	%	16x1440 17x1008	SparrowsPoint, Md. B2 Seattle B3	16 7 16	13x1020 13x1200 14x948 14x960	Seattle B3 Johnstown, Pa. B2
18	20x720	Munhall,Pa. U5 Seattle B3	% · · · · · · · · · · · · · · · · · · ·	18x960	Munhall, Pa. U5 Johnstown, Pa. B2	18	14x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
18	20x960 20x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	% · · · · · · · · · · · · · · · · · · ·	18x960	Seattle B3 So.Chicago, Ill. U5	76	15x900 15x1200	Seattle B3 Munhall,Pa. U5
Pe	20x1440 21x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	8/2 ****	18x1440 19x1020	SparrowsPoint,Md. B2 Seattle B3	18	16x876 16x960	Johnstown, Pa. B2
18	22x960 22x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%	19x1200 20x960	Munhall, Pa. U5 Johnstown, Pa. B2	18	16x1320	So.Chicago, III. U5 SparrowsPoint, Md. B2
18	22x1440	SparrowsPoint, Md. B2	3/8	20x972	Seattle B3 So.Chicago,Ill, U5	16 7 16	16x1440 17x876	Seattle B3 Munhall,Pa. U5
16 · · · · ·	23x1200 24x960	Munhall, Pa. U5 Johnstown, Pa. B2	98	20x1320 20x1440	SparrowsPoint, Md. B2	73	17x876 17x1200 18x924	Seattle B3



Hot-Rolled Plates, Universal CONTINUED FROM PRECEDING PAGE

W1.1	Width,		Th: -l	Width,	1	Thickness	Width, Max. Length	
Thickness (inches)	Max. Length (inches)	Mill Point, Producer	Thickness (inches)	Max. Length (inches)	Mill Point, Producer	(inches)	(inches)	Mill Point, Producer
7,8 · · · · · ·	18x960 18x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	1/2	14x1320 14x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2		11x1032 11x1200	Seattle B3 Munhall,Pa. U5
-2	18x1440	SparrowsPoint, Md. B2	1/4	15×780	Seattle B3	Îs · · · ·	12x840 12x960	Minnequa, Colo. C10 Johnstown, Pa. B2
18	19x888 19x1200	Seattle B3 Munhall,Pa. U5	½ · · · · · · · · · · · · · · · · · · ·	15x1200 16x480	Munhall, Pa. U5 Fontana, Calif. K1	2	12x1068	Seattle B3 So.Chicago,Ill. U5
1,8	20x960 20x960	Johnstown, Pa. B2 Seattle B3	1/4	16x804	Seattle B3 Johnstown,Pa. B2	18	12x1320	SparrowsPoint, Md. B2
70	20x1320	So. Chicago, Ill. U5 Sparrows Point, Md. B2	1/2	16x960 16x1320	So.Chicago,Ill. U5	9	13x804 13x1200	Seattle B3 Munhall,Pa. U5
1/5	20x1440 21x924	Seattle B3	1/2	16X1440	SparrowsPoint, Md. B2 Seattle B3	70	14X(44	Seattle B3 Johnstown,Pa. B2
īg · · · · ·	21x1200 22x864	Munhall,Pa. U5 Seattle B3	1/2	17x1200	Munhall,Pa. U5 Seattle B3	18	14x960 14x1320	So. Chicago, Ill. U5
7,	22x960 22x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	14	18x816 18x960	Johnstown, Pa. B2	J	14x1440 15x696	SparrowsPoint, Md. B2 Seattle B3
	22x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	½ · · · · · · · · · · · · · · · · · · ·	18x1320	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	Ig ····	15x1200 16x720	Munhall, Pa. U5 Seattle B3
J	23x1200 24x960	Johnstown, Pa. B2	1/2	19x768 19x1200	Seattle B3 Munhall,Pa. U5	9	16x960	Johnstown, Pa. B2 So. Chicago, Ill. U5
178	24x1320 24x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	1/2	20x816	Seattle B3 Johnstown,Pa. B2		16x1320 16x1440	SparrowsPoint, Md. B2
7,	25x1200	Munhall,Pa. U5 IndianaHarbor,Ind. I-2	14.	20x960 20x1320	So. Chicago, Ill. U5	2	17x684 17x1200	Seattle B3 Munhall,Pa. U5
3	26x780 26x960	Johnstown, Pa. B2	1/2	20x1440 21x780	SparrowsPoint,Md. B2 Seattle B3		18x732 18x960	Seattle B3 Johnstown, Pa. B2
7,	26x1320 26x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2		21x1200	Munhall,Pa. U5 Seattle B3	(g	18X134U	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
T	27x1200 28x960	Munhall,Pa. U5 Johnstown,Pa. B2	3/4	22x768 22x960	Johnstown, Pa. B2	70	18x1440 19x684	Seattle B3
J	28x1320 28x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	1/2	22x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	36	19x1200 20x744	Munhall, Pa. U5 Seattle B3
77	29x1200	Munhall, Pa. U5			Munhall,Pa. U5 Johnstown,Pa. B2	1g	20X960	Johnstown, Pa. B2 So. Chicago, Ill. U5
18	30x960 30x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	1/2	24x1320	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	27	20x1320 20x1440	SparrowsPoint,Md. B2
1 tg	30x1440 31x1200	SparrowsPoint,Md. B2 Munhall.Pa. U5	1/2	25x1200	Munhall, Pa. U5	16	21x70S 21x1200	Seattle B3 Munhall,Pa. U5
1 tg · · · · ·	32x960	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1/2	26x780	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2	Ig	22x960	Seattle B3 Johnstown,Pa. B2
1'8	32x1440 33x1200	Munhall,Pa. U5	1/2	26×1320	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	1 2	ZZX1340	So.Chicago,Ill. U5 SparrowsPoint,Md. B2
75 · · · · ·	34x960 34x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1/2	26x1440	Munhall.Pa. U5	1g	22X1440	Munhall, Pa. U5
J	36x960 36x1200	Johnstown, Pa. B2 Munhall, Pa. U5		28x960 28x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5
TE	36X144U	SparrowsPoint, Md. B2			SparrowsPoint, Md. B2 Munhall, Pa. U5		24x1440 25x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
18	37x1200 38x1440	Munhall, Pa. U5 Sparrows Point, Md. B2	1/2	30×960	Tohnetown Pa. B2	3	26X/8U	IndianaHarbor, Ind. I-2 Johnstown, Pa. B2
J	39x1200 40x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2		30x1320 30x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	je ····	26x360	So. Chicago, Ill. U5
	41x1200 42x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2			Munhall,Pa. U5 Johnstown,Pa. B2	18	27x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
74	43x1200	Munhall, Pa. U5		32x960 32x1440	SparrowsPoint, Md. B2 Munhall, Pa. U5	16	28x960 28x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5
1/5	44x1440	SparrowsPoint, Md. B2 Munhall, Pa. U5	3/2	34x960	Johnstown, Pa. B2	16	28x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5
18	46x1440 47x1080	SparrowsPoint,Md. B2 Munhall,Pa. U5	1/4	34X144U	SparrowsPoint, Md. B2 Johnstown, Pa. B2	2	29x1200 30x960	Johnstown, Pa. B2
178	48x1080	Munhall, Pa. U5 SparrowsPoint, Md. B2	1 7/	36x960 36x1200	Munhall, Pa. U5 SparrowsPoint, Md. B2		30x1320	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
18	48x1200 50x1200	SparrowsPoint, Md. B2	1/2	37×1200	Milinnail, Fa. 00	18	31x1200 32x960	Munhall,Pa. U5 Johnstown,Pa. B2
477	52x1200 54x1200	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	1/	38x1440 39x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	1 2	32x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5
18	58x960	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2			SparrowsPoint, Md. B2 Munhall, Pa. U5	1000000	34x960	Johnstown, Pa. B2
75	60x480 18½x—	SparrowsPoint, Md. B2 Weirton, W. Va. W6	1/2	42x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5		34x1440	SparrowsPoint,Md. B2 Johnstown,Pa. B2
1/2	6 L x 1200	So.Chicago,Ill. U5	1/2	44x1440	anamousePoint Md. B2	1 18	36x1200	Munhall,Pa. U5 SparrowsPoint,Md. B2
1/2	6 ½ x960 6 ¼ x1080	Johnstown, Pa. B2 Clairton, Pa. U5	16	40X1ZUU	Munhall,Pa. U5 SparrowsPoint,Md. B2		37x1200	Munhall,Pa. U5
3/2	6½x1080 6½x1320	Clairton, Pa. U5 So. Chicago, Ill. U5		46x1440 47x1200	Munhall, Pa. U5 Munhall, Pa. U5	2	38x1440 39x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5
1/2	6%x1080	Clairton, Pa. U5 Clairton, Pa. U5	1/2	48x1440	SparrowsPoint, Md. B2	18	41x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5
1/2	7x1056	Seattle B3		50x1440 52x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	16	42x1440 43x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
1/2	7X1320	So.Chicago, Ill. U5 Clairton, Pa. U5			SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	9	44x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5
1/2	7½ x1032	Clairton, Pa. U5 So. Chicago, Ill. U5	1 16	56x1440 58x1440	SparrowsPoint, Md. B2	16	45x1200 46x1440	SparrowsPoint, Md. B2
1/2	7½ x1320 7¾ x1020	Clairton, Pa. U5	1/2	660x400	SparrowsPoint,Md. B2 So.Chicago,Ill. U5		47x1200	Munhall, Pa. U5 Munhall, Pa. U5
1/2	8x960 8x960	Johnstown, Pa. B2 Seattle B3	18	64 x1044	Johnstown, Pa. B2 Clairton, Pa. U5	16	48x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
1/2	8x1020 8x1320	Clairton, Pa. U5 So. Chicago, Ill. U5	18	61/4×1032	Clairton, Pa. U5	2	,52x1440	SparrowsPoint, Md. B2
1/2	8 x	SanFrancisco B3 Clairton,Pa. U5	18	6% x1020	Clairton,Pa. U5 Clairton,Pa. U5	16	54x1440 56x1440	SparrowsPoint, Md. B2
1/2	8½ x1008	Clairton, Pa. U5	16	7x1008 7x1140	Seattle B3	777	58x1440 60x480	SparrowsPoint, Md. B2
1/2	8½ x1320	So.Chicago, Ill. U5 Clairton, Pa. U5	16	7x1320	So. Chicago, Ill. U5 Clairton, Pa. U5	I 5/2	6 1 x1200 6 1 x960	So.Chicago, Ill. U5 Johnstown, Pa. B2
1/2	9x720 9x1008	Seattle B3 Clairton, Pa. U5	19	6 72 AU LU	Clairton, Pa. U5	5/6	6¼ x996	Clairton, Pa. U5 Clairton, Pa. U5
1/2	9x1320	So.Chicago, Ill. U5	18	78/ ×960	Clairton, Pa. U5	5%	6½ x960 6½ x1320	So. Chicago, Ill. U5
1/2	9½ x1008 9½ x996	Clairton, Pa. U5 Clairton, Pa. U5	16	8x948	Clairton,Pa. U5 Johnstown,Pa. B2 Seattle B3	5/8	6 % x948	Clairton,Pa. U5 Clairton,Pa. U5
1/2	9½x1320 9¾x960	So.Chicago, III, U5 Clairton, Pa. U5	16	8x960	So. Chicago, III. Ub	5/2	7x1140	So. Chicago, Ill. U5
1/2	LUX (20	Seattle B3 Clairton,Pa. U5	16	8x1320	Clairton, Pa. U5 Clairton, Pa. U5		7x1320 7¼ x912	Clairton,Pa. U5 Clairton,Pa. U5
1/2	10x948 10x960	Johnstown, Pa. B2	18	81/2 X924	So Chicago, Ill. U5	0/0	7½ x888 7½ x1320	So. Chicago, Ill. U5
1/2	10x1320	So.Chicago, Ill. U5 Sparrows Point, Md. B2	16	8 % x912 9x720	Clairton, Pa. U5 Seattle B3	1 %	7 % x876 8x720	Clairton, Pa. U5 Seattle B3
1/2	11x1140	Seattle B3 Munhall,Pa. U5	18	9x900	Clairton, Pa. U5 So. Chicago, III. U5	5/8	8x852 8x960	Clairton, Pa. U5 Johnstown, Pa. B2
1/2	11x1200	Minnequa, Colo. C10	19	01/ x888	Clairton, Pa. U5 Clairton, Pa. U5	9/8	8x1320	So. Chicago, Ill. U5
1/2	12x960 12x972	Johnstown,Pa. B2 Seattle B3	100	9 ½ x1320	So. Chicago, Ill. U5	5/6	8x— 8¼x828	SanFrancisco B3 Clairton, Pa. U5
1/2	12x1320	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	16	9 % x852 10x840	Clairton, Pa. U5 Clairton, Pa. U5	5/2	8½x804 8½x1320	Clairton, Pa. U5 So. Chicago, Ill. U5
1/2	12x1440 13x900	Seattle B3	Te · · · ·		Johnstown, Pa. B2 Seattle B3	5/9	8¾ x780 9x768	Clairton, Pa. U5 Clairton, Pa. U5
1/2	13x1200 14x828	Munhall, Pa. U5 Seattle B3		10x1116 10x1320	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	5/9	9x1152 9x1320	Seattle B3 So.Chicago, Ill. U5
	14x960	Johnstown, Pa. B2	16 · · · ·	10x1440	sparrowsroint, mu. B2	78 * * * *		Do. O. Itagojani



Hot-Rolled Plates, Universal_____

Width,		Width,		, Width,	
Thickness Max. Leng (inches) (inches)	th Mill Point, Producer	Thickness Max. Length (inches)	Mill Point, Producer	Thickness Max. Length (inches)	Mill Point, Producer
%91/4 x768	Clairton, Pa. U5	1122x1320	So.Chicago,Ill. U5		SparrowsPoint, Md. B2
5%9 ½ x744 5%9 ½ x132	Clairton, Pa. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	So.Chicago, Ill. U5 Indiana Harbor, Ind. 1-2	%36x1440 %37x1200 %38x1440	Munhall, Pa. U5
%	Clairton, Pa. U5	11 11 11 11 11 11 11 11 11 11 11 11 11	So.Chicago, Ill. U5	%39x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5
5%10x744 5%10x960	Clairton, Pa. U5 Johnstown, Pa. B2	1128x1320 1330x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	%40x1440 %41x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5
%	Seattle B3 So.Chicago, Ill. U5	¾6 \x1200	So.Chicago, Ill. U5	%42x1440	SparrowsPoint, Md. B2
5/810x1320 5/810x1440	SparrowsPoint, Md. B2	%6½x960 %6¼x828	Johnstown, Pa. B2 Clairton, Pa. U5	¾43x1200 ¾44x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2
%11x936 %11x1200	Seattle B3 Munhall, Pa, U5	%	Clairton, Pa. U5	%45x1200	Munhall.Pa. 115
%12x768	Seattle B3	% % 6½x816 % 6½x1320 % 6x804 %	So.Chicago, Ill. U5 Clairton, Pa. U5	%	SparrowsPoint,Md. B2 Munhall,Pa. U5
5%	Minnequa, Colo. C10 Johnstown, Pa. B2	¾7x792	Clairton, Pa. U5	%48x1200 %48x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2
5%12x1320	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	¾7x1140 ¾7x1320	So.Chicago,Ill. U5	%50x1440	SparrowsPoint, Md. B2
%13x720	Seattle B3	34	Clairton, Pa. U5	%	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
5%13x1200 5%14x660	Munhall,Pa. U5 Seattle B3	%	Clairton, Pa. U5 . So. Chicago, Ill. U5	%56x1440	SparrowsPoint, Md. B2
5%14x960	Johnstown, Pa. B2 So. Chicago, Ill. U5	%	Clairton, Pa. U5 Clairton, Pa. U5	%58x1440 %60x480	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
%14x1320 %14x1440	SparrowsPoint,Md. B2	%8x960	Johnstown, Pa. B2	186 2 x1200	So. Chicago, Ill. U5
%15x624 %15x1200	Seattle B3 Munhall, Pa. U5	%8x1068 %8x1320	So. Chicago, Ill. U5	18	IndianaHarbor, ind. I-2 So. Chicago, Ill. U5
5%16x4S0	Fontana, Calif. K1	% · · · · · · · · · · · · · · · · · · ·	SanFrancisco B3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	So. Chicago, Ill. U5 So. Chicago, Ill. U5
%16x648 %16x960	Seattle B3 Johnstown, Pa. B2	%8½x696	Clairton, Pa. U5 Clairton, Pa. U5		So. Chicago, Ill. U5
%16x1320	So.Chicago, Ill. U5	%	So. Chicago, Ill. U5 Clairton, Pa. U5	138½x1320 189x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5
%16x1440 %17x612	SparrowsPoint,Md. B2 Seattle B3	%9x672	Clairton,Pa. U5	}	So. Chicago, Ill. U5
5%17x1200 5%18x648	Munhall, Pa. U5 Seattle B3	%9x948 %9x1320	So.Chicago.Ill. U5	1810x1320 1812x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5
%	Johnstown, Pa. B2	%9 ½ x672	Clairton, Pa. U5	1314x1320 1316x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5
%18x1320 %18x1440	So. Chicago, Ill. U5 Sparrows Point, Md. B2	349½x660 349½x1320	Clairton, Pa. U5 So. Chicago, Ill. U5	₹18x1320	So. Chicago, Ill. U5
5/819x612 5/819x1200	Seattle B3 Munhall,Pa. U5	¾	Clairton, Pa. U5	1820x1320 22x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5
%20x672	Seattle B3	%10x864	Clairton, Pa. U5 Seattle B3	1824x1320 1826x780	So. Chicago, Ill. U5 Indiana Harbor, Ind. I-2
5%20x960 5%20x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%10x960 %10x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	}}26x1320	So. Chicago, Ill. U5
5%20x1440	SparrowsPoint, Md. B2	%10x1440	SparrowsPoint, Md. B2	情 情 記 記 記 記 記 記 記 記 記 記 記 記 記 記 記 記 記 記	So. Chicago, Ill. U5 So. Chicago, Ill. U5
5%21x636 5%21x1200	Seattle B3 Munhall,Pa. U5	%11x780 %11x1200	Seattle B3 Munhall,Pa, U5	%6 ⅓ x1200	So. Chicago, Ill. U5
5%22x612 5%22x960	Johnstown,Pa. B2	%12x648 %12x840	Seattle B3	%6½x840 %6¼x696	Johnstown, Pa. B2 Indiana Harbor, Ind. I-2
%	So. Chicago, Ill. U5	¾12x960	Minnequa, Colo. C10 Johnstown, Pa. B2	%6¼ x708 %6½ x708	Clairton, Pa. U5 Clairton, Pa. U5
5/822x1440 5/823x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	%12x1320 %12x1440	So. Chicago, Ill. U5 Sparrows Point, Md. B2	%	So. Chicago, Ill. U5
5/824x960 5/824x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%13x600	Seattle B3	%6¾x696 %7x684	Clairton, Pa. U5 Clairton, Pa. U5
%24x1440	SparrowsPoint, Md. B2	¾14x552	Munhall,Pa. U5 Seattle B3	%7x1056 %7x1320	So. Chicago, Ill. U5
5%25x1200 5%26x780	Munhall, Pa. U5 Indiana Harbor, Ind. I-2	%14x960 . %14x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%	Clairton,Pa. U5
5%26x960 5%26x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%14x1440	SparrowsPoint, Md. B2	%	Clairton, Pa. U5 So. Chicago, Ill. U5
5/8	SparrowsPoint,Md. B2 Munhall,Pa. U5	¾15x1200	Seattle B3 Munhall,Pa. U5	%7 ¾ x648 %8x636	Clairton, Pa. U5 Clairton, Pa. U5
%28x960	Johnstown, Pa. B2	%16x480 %16x540	Fontana, Calif. K1 Seattle B3	%8x636 %8x840 %8x924	Johnstown, Pa. B2 Seattle B3
5%28x1320 5%28x1440	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	%16x960 %16x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%8x1320	So. Chicago, Ill. U5
5%29x1200 5%30x960	Munhall, Pa. U5 Johnstown, Pa. B2	%16x1440	SparrowsPoint, Md. B2	%8x— %8¼x636	SanFrancisco B3 Clairton,Pa. U5
5%30x1320 5%30x1440	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	%17x504 %17x1200	Seattle B3 Munhall,Pa. U5	%8½x612 %8½x1320	Clairton, Pa. U5 So. Chicago, Ill. U5
%31x1200	Munhall, Pa. U5	%18x540 %18x960	Johnstown, Pa. B2	%8 % x600 %9x588	Clairton, Pa. U5 Clairton, Pa. U5
%32x960 %32x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	¾18x1320	So.Chicago,Ill. U5	%9x816	Seattle B3
5/833x1200 5/834x960	Munhall,Pa. U5 Johnstown,Pa. B2	¾19x504	SparrowsPoint, Md. B2 Seattle B3	%9x1320 %9¼x576	So. Chicago, 111. U5 Clairton, Pa. U5
%34x1440	SparrowsPoint, Md. B2	%19x1200 %20x552	Munhall,Pa. U5 Seattle B3	%9½x564 %9½x1320	Clairton, Pa. U5 So. Chicago, Ill. U5
5/8	Johnstown, Pa. B2 Munhall, Pa. U5	¾20x960	Johnstown, Pa. B2	½	Clairton, Pa. U5
5%36x1440 5%37x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	%20x1440	So.Chicago,Ill. Uõ SparrowsPoint,Md. B2	%10x552 %10x732	Clairton, Pa. U5 Seattle B3
%38x1440	SparrowsPoint, Md. B2	%21x528 %21x1200	Seattle B3 Munhall, Pa. U5	%	Johnstown, Pa. B2 SparrowsPoint, Md. B2
% 39x1200 % 40x1440 % 41x1200	Munhall,Pa. U5 SparrowsPoint,Md. B2	%22x504	Seattle B3	%10x1320	So. Chicago, Ill. U5
5%41x1200 5%42x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2	%	Johnstown, Pa. B2 So. Chicago, Ill. U5	%11x672 %11x1200 %12x552	Seattle B3 Munhall, Pa. U5
%43x1200	Munhall, Pa. U5	%22x1440 %23x1200	SparrowsPoint, Md. B2 Munhall, Pa, U5	%12x552 %12x720	Seattle B3 Minnequa, Colo. C10
%44x1440 %45x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5 SparrowsPoint,Md. B2	%24x960	Johnstown, Pa. B2	%12x840	Johnstown, Pa. B2
5%	SparrowsPoint,Md. B2 Munhall,Pa. U5	3424x1320 3424x1440	So.Chicago, III. U5 SparrowsPoint, Md. B2	%12x1320 %12x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
5%48x1200 5%48x1440	Munhall, Pa. U5	¾25x1200	Munhall, Pa. U5	%	Seattle B3 Munhall, Pa. U5
%50x1440	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	34	IndianaHarbor,Ind. I-2 Johnstown,Pa. B2	%/14x468	Seattle B3
5/8	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	%26x1320 %26x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	%14x840 %14x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5
%54x1440 %56x1440 %58x1440	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	%27x1200	Munhall, Pa. U5	%14x1440 %15x444	SparrowsPoint, Md. B2 Seattle B3
5%60x480	SparrowsPoint, Md. B2	%28x960 %28x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5	%15x1200	Munhall, Pa. U5
10 x1200 10 x1200 10 x1320	So.Chicago,Ill. U5 So.Chicago,Ill. U5	¾28x1440 ¾29x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	%16x456 %16x480	Seattle B3 Fontana, Calif. K1
16 ·····7x1320	So.Chicago, Ill. U5 So.Chicago, Ill. U5	¾30x960	Johnstown, Pa. B2	%16x840 %16x1320	Johnstown, Pa. B2 So. Chicago, Ill. U5
11	So. Chicago, Ill. U5 So. Chicago, Ill. U5	%30x1320 %30x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	%	SparrowsPoint, Md. B2 Seattle B3
118½x1320 129x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	¾31x1200	Munhall, Pa. U5	% 17×1200	Munhall, Pa. U5
₹9½x1320	So.Chicago,Ill. U5	%32x960 %32x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	%	Johnstown, Pa. B2
$\frac{11}{16}$	So.Chicago, Ill. U5 So.Chicago, Ill. U5	¾33x1200	Munhall, Pa. U5	%18x1320 %18x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
11	So. Chicago, Ill. U5 So. Chicago, Ill. U5	%34x960 %34x1440	Johnstown,Pa. B2 SparrowsPoint,Md. B2	% .18x1440 % .19x432 % .19x1200 % .20x480 % .20x840	Seattle B3 Munhall,Pa. U5
18x1320 1220x1320	So. Chicago, Ill. U5	¾36x960	Johnstown, Pa. B2	%20x480	Seattle B3
16	So.Chicago,Ill. U5	¾36x1200	Munhall, Pa. U5	%20x840	Johnstown, Pa. B2



Hot-Rolled Plates, Universal_

CONTINUED FROM PRECEDING PAGE

	Width,		Thickness	Width,		1	Width,	* *
(inches)	Max. Length (inches)	Mill Point, Producer	(inches)	Max. Length (inches)	Mill Point, Producer	(inches)	Max. Length (inches)	Mill Point, Producer
7/8		So. Chicago, Ill. U5 SparrowsPoint, Md. B2		934 x492	Clairton, Pa. U5	1%	8x1200	So.Chicago,Ill. U5
7/6	20x1440 21x456	Seattle B3	1	10x450 10x648	Clairton, Pa. U5 Seattle B3	1%	81/4 x468 81/2 x456	Clairton, Pa. U5 Clairton, Pa. U5
7/8	21x1200 22x432	Munhall,Pa. U5 Seattle B3	1	10x732 10x780	Johnstown, Pa. B2 Indiana Harbor, Ind. 1-2	1%	8½x1200	So. Chicago, Ill. U5
7/9	,22x840	Johnstown, Pa. B2	1	10x1104	SparrowsPoint, Md. B2	1 1/8	8% x444 9x444	Cairton, Pa. U5 Clairton, Pa. U5
1/8	22x1320 22x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2		10x1320 11x588	So. Chicago, Ill. U5 Seattle B3	1%	9x648 9x1200	So. Chicago, Ill. U5
%	23x1200 24x840	Munhall,Pa. U5 Johnstown,Pa. B2	1	11x780 11x1200	IndianaHarbor, Ind. 1-2 Munhall, Pa. U5	1 1%	9 ½ x432	Clairton, Pa. U5
7/0	24x1320	So. Chicago, Ill. U5	1	12x480	Seattle B3	11/2	9½x420 9½x1188	Clairton, Pa. U5 So. Chicago, Ill. U5
7/8	24x1440 ,25x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	1	12x720 12x732	Minnequa, Colo. C10 Johnstown, Pa. B2	1%	9 ¾ x420 10x420	Clairton, Pa. U5 Clairton, Pa. U5
7/8	26x780	IndianaHarbor, Ind. 1-2 Johnstown, Pa. B2	1	12x1320 12x1440	So. Chicago, Ill. U5 Sparrows Point, Md. B2	11/8	10x576	Seattle B3 Johnstown,Pa. B2
7/9	26x828 26x1320	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	1	\dots 12 to 26 x 7	780 Ind. Harbor, Ind. I-2	11/8	10x660 10x984	SparrowsPoint, Md. B2
7/8	26x1440 27x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	1	13x444 13x1200	Seattle B3 Munhall,Pa. U5		10x1188 11x468	So. Chicago, Ill. U5 Seattle B3
3/8	28x828 28x1320	Johnstown, Pa. B2 So, Chicago, Ill. U5	1	14x420 14x732	Seattle B3 Johnstown, Pa. B2	1%	11x1200 12x528	Munhall,Pa. U5
7/8	28x1440	SparrowsPoint,Md. B2	1	14x1308	So.Chicago, Ill. U5	1%	12x660	Johnstown, Pa. B2
	29x1200 30x828	Munhall, Pa. U5 Johnstown, Pa. B2	1	14x1440 15x384	SparrowsPoint, Md. B2 Seattle B3		12x720 12x1164	Minnequa, Colo. C10 So. Chicago, Ill. U5
% ·····	30x1320	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	1	15x1200 16x408	Munhall, Pa. U5 Seattle B3	1%	12x1440 13x396	SparrowsPoint, Md. B2
7/0	30x1440 31x1200	Munhall, Pa. U5	1	16x480	Fontana, Calif. K1	1%	13x1200	Seattle B3 Munhall,Pa, U5
7/8	32x828 32x1440	Johnstown, Pa. B2 Sparrows Point, Md. B2	1	16x732 16x1296	Johnstown, Pa. B2 So. Chicago, Ill. U5		14x372 14x660	Seattle B3 Johnstown, Pa. B2
7/8 · · · · · ·	33x1200	Munhall, Pa. U5 Johnstown, Pa. B2	1	16x1440	SparrowsPoint, Md. B2	11/8	14x1152	So. Chicago, Ill. U5
% · · · · · · · · · · · · · · · · · · ·	34x828 34x1440	SparrowsPoint, Md. B2	1	17x384 17x1200	Seattle B3 Munhall, Pa. U5	1 1 1	14x1440 15x348	SparrowsPoint, Md. B2 Seattle B3
%	36x828 36x1200	Johnstown, Pa. B2 Munhall, Pa. U5	1	18x408 18x732	Johnstown, Pa. B2	1%	15x1168 16x360	Munhall, Pa. U5 Seattle B3
7/8	36x1440	SparrowsPoint, Md. B2 Munhall, Pa. U5	1	18x1290	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	11/8	16x660 16x1140	Johnstown, Pa. B2
7/8	37x1200 38x1440	SparrowsPoint, Md. B2	1	18x1440	Seattle B3	1 1 1/8	16x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
7/8	39x1200 40x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2	1	19x1200 20x408	Munhall, Pa. U5 Seattle B3	1 1 1/8	17x336 17x1200	Seattle B3 Munhall, Pa. U5
7/8	41x1200 42x1440	Munhall,Pa. U5 SparrowsPoint,Md. B2	1	20x732 20x1284	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 1/8	18x360 18x660	Seattle B3 Johnstown,Pa, B2
7/9	43x1200	Munhall, Pa. U5	1	20x1440	SparrowsPoint, Md. B2 Seattle B3	11/8	18x1128 18x1440	So. Chicago, Ill. U5
7/8	44x1440 45x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5	1	21x396 21x1200	Munhall.Pa. U5	11/8	19x336	SparrowsPoint, Md. B2 Seattle B3
7/8	46x1440 47x1193	SparrowsPoint,Md. B2 Munhall,Pa. U5	1	22x384 22x732	Seattle B3 Johnstown, Pa. B2	1 1/8	19x1200 20x372	Munhall,Pa. U5 Seattle B3
7/8	48x1169 48x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2	1	22x1278 22x1440	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20x660 20x1128	Johnstown, Pa. B2 So. Chicago, Ill. U5
7/8	50x1440 52x1440	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	1	23x1200 24x732	Munhall, Pa. U5 Johnstown, Pa. B2	1 1 1/8	20x1440 21x348	SparrowsPoint, Md. B2 Seattle B3
7/2	54x1440	SparrowsPoint, Md. B2	1	24x1272	So.Chicago, Ill. U5	1%	21x1200	Munhall, Pa. U5
% · · · · · · · · · · · · · · · · · · ·	56x1440 58x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	1	24x1440 25x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 1 1/4	22x336 22x660	Seattle B3 Johnstown,Pa. B2
% · · · · · ·	60x480 616x1200	SparrowsPoint, Md. B2 So. Chicago, Ill. U5		26x732 26x1266	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 1 1/4	22x1128 22x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
15	6½ x1320	So. Chicago, Ill. U5	1	26X144U	SparrowsPoint, Md. B2	11/8	23x1200	Munhall, Pa. U5
15	7x1320 7½x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	27x1200 28x732	Munhall,Pa. U5 Johnstown,Pa. B2	1 1/8 1 1/8	24x1116	Johnstown, Pa. B2 So. Chicago, Ill. U5
₹	8x1320 8½x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	28x1266 28x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	11/8	24x1440 25x1200	SparrowsPoint,Md. B2 Munhall,Pa. U5
}	9x1320 9½x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	29x1200 30x732	Munhall, Pa. U5 Johnstown, Pa. B2	1 1/8	26x660 26x1116	Johnstown, Pa. B2 So. Chicago, Ill. U5
18	10x1320	So. Chicago, Ill. U5	1	30x1182 30x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	11/8	26x1440 27x1200	SparrowsPoint.Md. B2 Munhall,Pa. U5
14	12x1320 14x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	31x1200	Munhall,Pa. U5	11/8	28x660	Johnstown, Pa. B2
15	16x1320 18x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	32x732 32x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	11/8	28x1116 28x1440	So.Chicago,Ill. U5 SparrowsPoint,Md. B2
19	20x1320 22x1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	33x1200 34x732	Munhall, Pa. U5 Johnstown, Pa. B2	1%	29x1200 30x660	Munhall, Pa. U5 Johnstown, Pa. B2
19	24×1320	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	34x1440 36x732	SparrowsPoint, Md. B2 Johnstown, Pa. B2	11/4	30x1032 30x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
16	26x1320 28x1320	So. Chicago, Ill. U5	1	36x1200	Munhall, Pa. U5	11/8	31x1200	Munhall,Pa. U5 Johnstown,Pa. B2
18	30x1260 6\2x1200	So. Chicago, Ill. U5 So. Chicago, Ill. U5	1	36x1440 37x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	11/8		SparrowsPoint, Md. B2
1	6 ½ x720 6 ¼ x624	Johnstown, Pa. B2 Clairton, Pa. U5	1	38x1440 39x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	1%	33x1200 34x660	Munhall,Pa. U5 Johnstown,Pa. B2
l	6¼ x624	IndianaHarbor, Ind. I-2 Clairton, Pa. U5	1	40x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	11/8	34x1440 36x660	SparrowsPoint, Md. B2 Johnstown, Pa. B2
	6½x612 6½x780	Indiana Harbor, Ind. I-2	1	41x1197 42x1440	SparrowsPoint, Md. B2	11/8	36x1200	Munhall, Pa. U5 SparrowsPoint, Md. B2
	6½ x1272 6¾ x600	So.Chicago,Ill. U5 Clairton,Pa. U5	1	43x1142 44x1440	SparrowsPoint, Md. B2	1½ 1½	37x1180	Munhall, Pa. U5
	6¾ x780	IndianaHarbor, Ind. I-2 Clairton, Pa. U5	1	45x1091	Munhall,Pa. U5 SparrowsPoint,Md. B2	1 1/8 1 1/8	39x1119	SparrowsPoint, Md. B2 Munhall, Pa. U5
	7x780	IndianaHarbor, Ind. I-2 Seattle B3	1	46x1440 47x1044 48x1023	Munhall,Pa. U5 Munhall,Pa. U5	1 1 1	40x1440 41x1064	SparrowsPoint, Md. B2 Munhall, Pa. U5
1	7x1320	So. Chicago, Ill. U5	1	48x1440 50x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	11/8	42x1440	SparrowsPoint.Md. B2 Munhall,Pa. U5
	7½ x588 7½ x576	Clairton, Pa. U5 Clairton, Pa. U5	1	52X144U	SparrowsPoint, Md. B2	11/8	44x1440	SparrowsPoint, Md. B2
	71/2×780	IndianaHarbor, Ind. I-2 So. Chicago, Ill. U5	1	54x1440 56x1440	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	1 1/8	46x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2
	7½x1320 7¾x564	Clairton, Pa. U5 Clairton, Pa. U5	1	58x1440	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	1 1/8	47x927 48x910	Munhall, Pa. U5 Munhall, Pa. U5
l	8x720	Johnstown, Pa. B2	11/8	6 ₁₀ x1080	So. Chicago, Ill. U5	1% 1%	48x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
l	8x804	IndianaHarbor, Ind. I-2 Seattle B3	11/8	6½ x1080 6¼ x660 6¼ x588	Johnstown, Pa. B2 Clairton, Pa. U5	1%	52x1440	SparrowsPoint, Md. B2
i	8x1320	So. Chicago, Ill. U5 SanFrancisco B3	1 16	6 1/6 X 5 7 B	Clairton, Pa. U5 So. Chicago, Ill. U5	11/8	56x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
	81/4 x552	Clairton, Pa. U5	11/8	6½ x1128 6¾ x576	Clairton, Pa. U5 Clairton, Pa. U5	1%	58x1440 60x480	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
	8½ x540 8½ x1320	Clairton, Pa. U5 So. Chicago, Ill. U5	1 1/8	7x804	Seattle B3	11/4	6 1 x972	So.Chicago.Ill. U5
l	8 ¾ x528 9x516	Clairton,Pa. U5 Clairton,Pa. U5	1 1/8	7 ¼ x540	So. Chicago, Ill. U5 Clairton, Pa. U5	11/4	6½ x540	Johnstown,Pa. B2 Clairton,Pa. U5
1		Seattle B3 IndianaHarbor, Ind. I-2	1 1/8	7½x516 7½x1212	Clairton, Pa. U5 So. Chicago, Ill. U5	11/4	61/2 x528	IndianaHarbor, Ind. I-2 Clairton, Pa. U5
	9 x1320 9¼x516	So. Chicago, Ill. U5 Clairton, Pa. U5	11/8	8x480	Clairton, Pa. U5 Clairton, Pa. U5	11/4	6½x1002	IndianaHarbor, Ind. 1-2 So. Chicago, Ill. U5
	91% x504	Clairton, Pa. U5	1%	8x660	Johnstown, Pa. B2 Seattle B3	1¼ 1¼	6¾ x516	Clairton, Pa. U5 Indiana Harbor, Ind. I-2
	9½ x1320	So. Chicago, Ill. U5	2.78	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5000000			

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Hot-Rolled Plates, Universal CONTINUED FROM PRECEDING PAGE

	Width,		Widt		Width,	
Thickness (inches)	Max. Length (inches)	Mill Point, Producer	Thickness Max. Le (inches) (inche		Thickness Max. Length (inches) (inches)	Mili Point, Producer
1	7x504	Clairton, Pa. U5	1¾45x87	3 Munhall, Pa. U5	136 26×1440	SparrowsPoint, Md. B2
134	7x624	IndianaHarbor, 1nd. I-2	1¼46x13 1¼47x83	SparrowsPoint.Md. B2	1%27x1200 1%28x528	Munhall,Pa. U5 Johnstown,Pa. B2
1%	7x732 7x1044	So. Chicago, Ill. Uō	13448x81	9 Munhall, Pa. U5	1 %28x912	So.Chicago, Ill. U5
136	734 x480	Clairton, Pa. U5	1¼48x14 1¼50x14	40 SparrowsPoint,Md. B2 40 SparrowsPoint,Md. B2	1%28x1440 1%29x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5
1 3/6	7 ½ x456 7 ½ x648	Clairton, Pa. U5 Indiana Harbor, Ind. I-2	1 1 4	40 SparrowsPoint, Md. B2	1%30x528	Johnstown, Pa. B2
134	736×1092	So.Chicago, Ill. U5	1¼54x14 1¼56x14	40 SparrowsPoint,Md. B2 40 SparrowsPoint,Md. B2	1%30x846 1%30x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
11/4	7% x444 8x432	Clairton, Pa. U5 Clairton, Pa. U5	11/458x14	40 SparrowsPoint, Md. B2	1 %31x1151	Munhall.Pa. U5
134	8X076	Johnstown, Pa. B2 Seattle B3	11460x48		1 %32x528 1 %32x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2
14.	8x648	IndianaHarbor, Ind. 1-2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Clairton, Pa. U5 Clairton, Pa. U5	1%33x1082	Munhall, Pa. U5
134	8x1080 84x420	So. Chicago, Ill. U5 Clairton, Pa. U5	1 7 6 % x4	92 Clairton, Pa. U5	1%34x52S 1%34x1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2
134	81/4×408	Clairton, Pa. U5	1 167x468	Clairton, Pa. U5 Clairton, Pa. U5	1%36x528	Johnstown, Pa. B2
114	81 x 1080	So.Chicago, Ill. U5 Claurton, Pa. U5	1 A 7 34 X4	32 Clairton.Pa. U5	1%36x991 1%36x1440	Munhall, Pa. U5 SparrowsPoint, Md. B2
1 1	9x396	Clairton, Pa. U5	178	Clairton, Pa. U5	1%37x965	Munhall, Pa. U5
1 156	9x576 9x720	Seattle B3 IndianaHarbor, Ind. I-2	1 3 SV x3	Clairton, Pa. U5	1%39x915	SparrowsPoint, Md. B2 Munhall, Pa. U5
134	9x1068	So. Chicago, Ill. U5	1 1 8 8 ½ x3	Clairton, Pa. U5 Clairton, Pa. U5	1%40x1380 1%41x870	SparrowsPoint,Md. B2
	9¼ x384 9¼ x384	Clairton, Pa. U5 Clairton, Pa. U5	1.59x372	Clairton, Pa. Ub	1%42x1380	Munhall, Pa. U5 SparrowsPoint, Md. B2
114	91,x1068 9 x x372	So Chicago, Ill. U5	1 %914 x3	Clairton, Pa. Co	1%43x930 1%44x1260	Munhall.Pa. U5
11/4	9 % X372	Clairton, Pa. U5 Clairton, Pa. U5	1 %9 % x3	Clairton, Pa. Up	1 1 %	SparrowsPoint, Md. B2 Munhall, Pa. U5
11/4	10x516	Seattle B3	14g	Ciairton, a. co	1%46x1260 1%47x759	SparrowsPoint, Md. B2 Munhall, Pa. U5
144	10x576 10x600	Johnstown, Pa. B2 Indiana Harbor, Ind. I-2	1%6 x8	Johnstown, Pa. 52	1 %48x1320	SparrowsPoint, Md. B2
13/4	10x900	SparrowsPoint, Md. B2	186 634 x4	80 Clairton, Pa. U5	1%50x1320 1%52x1320	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
1 4	10x1068	So.Chicago.Ill. U5 Seattle B3	1%61 x 1		1%54x1320	SparrowsPoint, Md. B2
11/4	11x552	IndianaHarbor, Ind. I-2	1%6% x4	68 Clairton, Pa. U5	1%56x1440 1%58x1440	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
1 11,	11x1200	Munhall, Pa. U5 Seattle B3	1%7x444 1%7x672	Seattle B3	1%60x480	SparrowsPoint, Md. B2
114	12x576	Johnstown, Pa. B2 Minnequa, Colo. C10	1 %	So. Chicago, Ill. U5	1½6½xS04 1½6½xX4N0	So.Chicago.Ill. U5
	12x600	So. Chicago, Ill. U5	1%736 x4	20 Clairton,Pa. U5	11/461/4 x468	Johnstown, Pa. B2 Clairton, Pa. U5
134	12x1440	SparrowsPoint, Md. B2 576 Ind. Harbor, Ind. I-2	1%7½ x9	So.Chicago, III. Up	1½6½x480	Indiana Harbor, Ind. I-2
134	13x360	Seattle B3	1 1 1 8x384	Clairton, Pa. U5	1½6½x528	Clairton, Pa. U5 Indiana Harbor, Ind. I-2
1%	13x1200 14x336	Munhall, Pa. U5 Seattle B3	1%8x528	Johnstown, Pa. B2 Seattle B3	1½6½x840 1½6½x432	So.Chicago, Ill. U5
1 1 1/4	14x576	Johnstown, Pa. B2	1 %8x984	So. Chicago, Ill. U5	1½6½ x528	Clairton, Pa. U5 Indiana Harbor, Ind. I-2
1%	14x1032	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	1%8¼x3 1%8½x3	Clairton, Pa. U5 Clairton, Pa. U5	1½7x408 1½7x612	Clairton, Pa. U5
134	15x312	Seattle B3	1%814x9	No. Chicago, Ill. U5	1½7x624	Seattle B3 IndianaHarbor,Ind, I-2
114	15x1052 16x324	Munhall, Pa. U5 Seattle B3	13 ₈ 9x360	Clairton, Pa. U5 Clairton, Pa. U5	11:	So. Chicago, Ill. U5 Clairton, Pa. U5
1%	16x480	Fontana, Calif. K1	1 1 3%9x528	Seattle B3	1 ½	Clairton, Pa. U5
1%	16x576 16x1032	Johnstown, Pa. B2 So. Chicago, III. U5	1%9x972	660 Clairton.Pa. U5	1½7½x648 1½7½x900	IndianaHarbor, Ind. 1-2 So. Chicago, Ill. U5
14	16x1440	SparrowsPoint, Md. B2	18g91g X3	Clairton, Pa. U5	1 12	Clairton, Pa. U.5
1%	17x300 17x1200	Seattle B3 Munhall,Pa. U5	1%9%x9	148 Clairton, Pa. U5	1½8x360 1½8x480	Clairton, Pa. U5 Johnstown, Pa. B2
114	18x324 18x576	Johnstown, Pa. B2	1%10x34 1%10x48	8 Clairton, Pa. U5	1½8x540	Seattle B3
134	18x1020	So. Chicago, Ill. U5	1 3 ₈	ls Johnstown, Pa. B2	1½Sx900	IndianaHarbor,Ind. I-2 So.Chicago,Ill. U5
114	18x1440 19x300	SparrowsPoint, Md. B2 Seattle B3	1%10x81 1%10x96	8 SparrowsPoint, Md. B2 So. Chicago, Ill. U5	1½8½ x348 1½8½ x336	Clairton, Pa. U5
134	19x1200	Munhall, Pa. U5	1%	34 Seattle B3	1½8½ x900	Clairton, Pa. U5 So. Chicago, Ill. U5
1%	20x336 20x576	Johnstown, Pa. B2	1%11x12 1%12x40	Munhall, Pa. U5 8 Seattle B3	1½8¾ x336 1½9x336	Clairton, Pa. U5 Clairton, Pa. U5
1 134	20x1020	So.Chicago, Ill. U5	1%12x52	Johnstown, Pa. B2	11/29x4S0	Seattle B3
1 5/4	20x1440 21x312	SparrowsPoint,Md. B2 Seattle B3	1%12x60	Minnequa, Colo. C10 So. Chicago, Ill. U5	1½9x720 1½9x888	IndianaHarbor, Ind. I-2 So. Chicago, Ill. U5
1 1/4	21x1200	Munhall, Pa. U5	1 %	40 SparrowsPoint, Md. B2	1 ½9 ½ x324	Clairton, Pa. U5
1 139	22x300 22x576	Johnstown, Pa. B2	1%13x38	Munhall, Pa. U5	11/491/4 x324 11/491/3 x888	Clairton, Pa. U5 So. Chicago, Ill. U5
134	22x100S	So. Chicago, Ill. U5	1 %	90 Seattle B3	1 ½	Clairton, Pa. U5
134	22x1440 23x1200	SparrowsPoint, Md. B2 Munhall, Pa. U5	1%14x52 1%14x93	so. Chicago, Hi, Up	1½10x312 1½10x432	Clairton, Pa. U5 Seattle B3
1%	24x576 24x1008	Johnstown, Pa. B2 So. Chicago, Ill. U5	1%14x14 1%15x28	140 SparrowsPoint, Md. B2	1½10x480	Johnstown, Pa. B2
134	24x1440	SparrowsPoint, Md. B2	1 %	Munhall, Pa. U5	1½10x600 1½10x744	IndianaHarbor, Ird. I-2 SparrowsPoint, Md. B2
1 3	25x1200 26x576	Munhall, Pa. U5 Johnstown, Pa. B2	1 %16x25	Seattle B3	12410x888	So. Chicago, Ill. U5
14	26x1008	So. Chicago, Ill. U5	1%16x52	36 So. Chicago, Ill. U5	1½11x348 1½11x552	Seattle B3 IndianaHarbor,Ind. I-2
124	26x1440 27x1200	SparrowsPoint,Md. B2 Munhall,Pa, U5	1%16x14	140 SparrowsPoint, Md. B2	1½11x1195 1½12x324	Munhall, Pa. U5
1 1/4	28x576	Johnstown, Pa. B2	1%17x12	200 Munhall, Pa. U5	1½12x480	Seattle B3 Johnstown, Pa. B2
11/4	28x996	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	1%18x36	00 Seattle B3	1½12x600 1½12x864	Minnequa, Colo. C10 So. Chicago, Ill. U5
11/4	29x1200	Munhall, Pa. U5	13818x92	24 So. Chicago, Ill. U5	1½12x1440	SparrowsPoint.Md. E2 576 Ind.Harbor,Ind. I-2
11/4	30x576	Johnstown, Pa. B2 So. Chicago, Ill. U5	1%18x14	SparrowsPoint, Md. B2 Seattle B3	1½12 thru 26 x . 1½13x300	576 Ind.Harbor,Ind. I-2 Seattle B3
11/4	30x1440	SparrowsPoint, Md. B2	1%19x12	200 Munhali, Pa. U5	1½13x1012	Munhall, Pa. U5
11/4	31x1200	Munhall, Pa. U5 Johnstown, Pa. B2	1%20x30	28 Johnstown, Pa. B2	1½14x276 1½14x480	Seattle B3 Johnstown, Pa. B2
11/4	32x1440	SparrowsPoint,Md. B2	1%20x92	So. Chicago, Ill. U5	1½14x864	So. Chicago, Ill. U5
1 1/4	33x1090 34x576	Munhall, Pa. U5 Johnstown, Pa. B2	1%20x14	Seattle B3	1 1 ½14x1440 1 ½15x264	SparrowsPoint, Md. B2 Seattle B3
11/4	34x1440 36x576	SparrowsPoint,Md. B2 Johnstown,Pa. B2	1%Z1X12	zuo Munnan.Pa. Up	1 1/415x876	Munhall, Pa. U5
11/4	36x1091	Munhall, Pa. U5	1 %	28 Johnstown, Pa. B2	1½16x264 1½16x480	Seattle B3 Fontana, Calif. K1
1 134	36x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	1 %22x91	2 So Chicago III II5	1½16x480	Johnstown, Pa. B2
11/4	3Sx1440	SparrowsPoint, Md. B2	1 190	auunnam.Pa. Ua	11/416x852 11/416x1440	So.Chicago.Ill. U5 SparrowsPoint,Md. B2
	39x1006	Munhall, Pa. U5 SparrowsPoint, Md. B2	1%24x52 1%24x91	28 Johnstown, Pa. B2	1½17x252	Seattle B3
11/4	41x957	Munhall, Pa. U5	1 134 24 14	140 SparrowsPoint Md R9	1½17x1152 1½18x276	Munhall, Pa. U5 Seattle B3
14	42x1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	1 %25x12 1 %26x52	Munhall, Pa. U5 Johnstown, Pa. B2	1½18x480	Johnstown, Pa. B2
114	44x1380	SparrowsPoint,Md. B2	1%26x91	So. Chicago, Ill. U5	1½18x840	So.Chicago, Ill. U5



Hot-Rolled Plates, Universal_

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	Width,			Width,			Width,	
Thickness (inches)	Max. Length (inches)	Mill Point, Producer	Thickness (inches)	Max. Length (inches)	Mill Point, Producer	Thickness (inches)	Max. Length (inches)	Mill Point, Producer
11/2	18x1440	SparrowsPoint, Md. B2	1%	18x1320	SparrowsPoint, Md. B2	1 1 1/4	17x987	Munhall, Pa. US
11/2	19x252 19x1139	Seattle B3 Munhall,Pa. U5	1%	19x1051 20x444	Munhall,Pa. U5 Johnstown,Pa. B2	1 1/2	18x408	Johnstown, Pa. B2 So. Chicago, Ill. U5
1 1/2	20x276	Seattle B3	1 1/8	20x780	So. Chicago, Ill. U5	1%	18x1320 19x976	SparrowsPoint, Md. B2
1 1/2	20x480 20x840	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 1/8	20x1440 21x1042	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19x976 20x408	Munhall, Pa. U5 Johnstown, Pa. B2
1½	20x1440	SparrowsPoint, Md. B2	1 1/8	22x444	Johnstown, Pa. B2	1 3/4	20x720	So. Chicago, Ill. U5
11/2	21x264 21x1129	Seattle B3 Munhall,Pa. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22x768 22x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	1 4	20x1440 21x965	SparrowsPoint, Md. B2 Munhall, Pa. U5
1 1/2	22x252	Seattle B3	1 1/8	23x1034	Munhall,Pa. U5	1%	667.3433	Johnstown, Pa. B2 So. Chicago, Ill. U5
1½	22x480 22x840	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 % 1 %	24×444 24×768	Johnstown, Pa. B2 So. Chicago, Ill. U5	1%	22x1440	SparrowzPoint, Md. B2
11/2	22x1440 23x1120	SparrowsPoint, Md. B2	1%	24×1440	SparrowsPoint,Md. B2 Munhall,Pa. U5	1 1/4	23x961 24x408	Munhall, Pa. U5 Johnstown, Pa. B2
1 1/2	24x480	Munhall,Pa. U5 Johnstown,Pa. B2	1 1/4	25x1028	Johnstown, Pa. B2	1%	24%714	So. Chicago, Ill. U5
11/2	24x828 24x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	1 1/4	26x768 26x1440	So.Chicago, III. U5 SparrowsPoint, Md. B2	1%	24×1440 25×954	SparrowsPoint, Md. B2 Munhall, Pa. U5
1 1/2	25x1114	Munhall,Pa. U5	15/4	27x1022	Munhall, Pa. U5	1 1 1/4	26x408 26x714	Johnstown, Pa. B2 So. Chicago, Ill. U5
11/2	26x480 26x828	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 5%	28×144 28×768	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 3/4	26x1440	SparrowsPoint, Md. B2
11/2	26x1440	SparrowsPoint, Md. B2	1 1/8	25×1440	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 36	27×949 28×408	Munhall, Pa. U5 Johnstown, Pa. B2
1 1/2	27x1107 28x480	Munhall,Pa. U5 Johnstown,Pa. B2	1 5/4	30x444	Johnstown, Pa. B2	1 34	28x708 25x1440	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
1 1/2	28x828 28x1440	So. Chicago, III. U5	1 %	30x714 30x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	13/4	29×945	Munhall, Pa. U5
11/2	29x1102	SparrowsPoint,Md. B2 Munhall,Pa. U5	1 %	31x974	Munhall, Pa. U5	1 3/4	30x408	Johnstown, Pa. B2 Bo. Chicago, Ill. U5
11/2	30x480 30x792	Johnstown, Pa. B2 So. Chicago, III. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	32×444 32×1440	Johnstown, Pa. B2 SparrowsPoint, Md. B2	1 1 3/4	20x1440	SparrowsPoint, Md. B2
1 1/2	30x1440	SparrowsPoint, Md. B2	1 1/2	33x915	Munhall.Pa. U5 Johnstown,Pa. B2	1 1 %	31x904 32x408	Munhall, Pa. U5 Johnstown, Pa. B2
11/2	31x1056 32x480	Munhall,Pa. U5 Johnstown,Pa. B2	1 %	34×444 34×1440	SparrowsPoint, Md. B2	1 1/4	32x1320 33x850	SparrowsPoint, Md. B2 Munhall, Pa. U5
; 1½	32x1440	SparrowsPoint, Md. B2	1 %	36x444 36x438	Johnstown, Pa. B2 Munhall, Pa. U5	1 1/2	34 × 4 0 ×	Johnstown, Pa. B2
11/2	33x991 34x480	Munhall,Pa. U5 Johnstown,Pa. B2	1 %	36%1260	SparrowsPoint, Md. B2	13/4	34x1320 36x408	SparrowsPoint, Md. B2 Johnstown, Pa. B2
11/2	34x1440 36x480	SparrowsPoint,Md. B2 Johnstown,Pa. B2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	37x816 38x1260	Munhall,Pa. U5 SparrowsPoint,Md. B2	13/4	36x779 36x1140	Munhall, Pa. U5
1 1/2	36x908	Munhall, Pa. U5	1 5/.	34×775	Munhall,Pa. U5	13/4	37×758	SparrowsPoint, Md. B2 Munhall, Pa. U3
1½	36x1380 37x894	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	40x1140 41x736	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 %	38x1140 39x719	SparrowsPoint, Md. B2 Munhall, Pa. U5
11/2	38x1380	SparrowsPoint, Md. B2	15/4	42x1140 43x702	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 1 3/4	40x960	Sparrow: Po.r.t. Md. B2
11/2	39x838 40x1260	Munhall, Pa. U5 SparrowsPoint, Md. E2	1 %	44x1080	SparrowsPoint, Md. B2	1 1 1	41x684 42x1080	Munhall, Pa. U5 SparrowsPoint, Md. B2
	41x797 42x1260	Munhall, Pa. U5 SparrowsPoint, Md. B2	1 1 1	45x671 46x1080	Munhall,Pa. U5 SparrowsPoint,Md. B2	1%	43×652 44×960	Munhall, Pa. U5 SparrowsPoint, Md. B2
11/2	43x761	Munhall, Pa. U5	1 %	47X633	Munhall, Pa. U5 SparrowsPoint, Md. B2	13/4	45x623	Munhall, Pa. U5
11/2	44x1140 45x726	SparrowsPoint, Md. B2 Munhall, Pa. U5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	48x1140 50x1140	SparrowsPoint, Md. B2	1 1/4	46x960 47x597	SparrowsPoint, Md. B2 Munhall, Pa. U5
11/2	46x1140	SparrowsPoint, Md. B2	1 5/4	52x1140 54x1140	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	1%	48x1080 50x1080	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
11/2	47x696 48x1200	Munhall,Pa. U5 SparrowsPoint,Md. B2	1 %	56×1200	SparrowsPoint, Md. B2	1 1/4 0000		SparrowsPoint, Md. B2
1 1/2	50x1200 52x1200	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	1%	05X1200	SparrowsPoint, Md. B2 So. Chicago, Ill. U5	1 1/4	54x1080 56x1140	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
1 1/2	,54x1200	SparrowsPoint, Md. B2	1 3/4	6 % x684 6 % x408 6 4 x396	Johnstown, Pa. B2	1 1%	58x1140	SparrowsPoint, Md. B2 So. Chicago, Ill. U5
11/2	56x1320 58x1320	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	1 3/4	6¼ x396 6¼ x420	Clairton, Pa. U5 Indiana Harbor, Ind. I-2	1 1/2	67.x636 67.x384	Johnstown, Pa. B2
1½	60x480	SparrowsPoint, Md. B2	1%	61/2×384	Clairton, Pa. U5	1 1/2	81/4×372	Clairton, Pa. U5 Clairton, Pa. U5
		to 6½ x 480 Youngstn U5	1 3/4	6½x432 6½x708	IndianaHarbor, Ind. I-2 So. Chicago, Ill. U5	1 1/8	6½ x660 6¾ x348	So. Chicago, Ill. U5
1%	6 % x744	So. Chicago, Ill. U5 Johnstown, Pa. B2	1 %	6% x372	Clairton, Pa. U5 Indiana Harbor, Ind. I-2	1 1/8	7x338	Clairton, Pa. U5 Clairton, Pa. U5
1 5/6	6¼ ×432	Clairton, Pa. U5 Clairton, Pa. U5	13/4	7x360	Clairton, Pa. U5		7x492 7x684	So. Chicago, Ill. U5
1%	6½x420 6½x756	So. Chicago, Ill. U5	13/4	7x528	Seattle B3 IndianaHarbor, Ind. I-2	1 1/8	7½ x312 7½ x300	Clairton, Pa. U5
1%	6% x396 7x384	Clairton, Pa. U5 Clairton, Pa. U5	1 3/4	7x732 7¼x336	So. Chicago, Ill. U5 Clairton, Pa. U5	1 1/2	71/27714	Clairton, Pa. U5 80. Chicago, Ill. U5
1%	7x564	Seattle B3	13/4	71/2×324	Clairton, Pa. U5	1 1 1/2	7 % x288 8x278	Clairton, Pa. U5 Clairton, Pa. U5
1%	7x792 7¼x372	So. Chicago, Ill. U5 Clairton, Pa. U5	1%	7½ x540 7½ x788	IndianaHarbor, Ind. 1-2 So. Chicago, Ill. U5	1 1/2	8x384	Johnstown, Pa. B2
1 1 %	7½ x360 7½ x828	Clairton, Pa. U5 So. Chicago, Ill. U5	1 %	7% 7.312	Clairton, Pa. U5 Clairton, Pa. U5	1 1/8	8x432 8x714	So. Chicago, III. U5
1%	7¾ x348	Clairton, Pa. U5	1%	8x300 8x408	Johnstown, Pa. B2	1 %	81/2×278	Clairton, Pa. U5 Clairton, Pa. U5
1.5/2	8x336	Clairton, Pa. U5 Johnstown, Pa. B2	1 3/4	8x456	Seattle B3 IndianaHarbor, Ind. I-2	1 1/2	81/2×70/8	Bo. Chicago, III. US
1%	8X49Z	Seattle B3	1%	8X168	So. Chicago, III. U5 Clairton, Pa. U5	1 1/2	8% x284 9x284	Clairton, Pa. U5 Clairton, Pa. U5
1 5/4	8x828 8¼x324	So.Chicago,Ill. U5 Clairton,Pa. U5	1%	81/4 x288 81/4 x288	Clairton,Pa. U5	1 1/8	9x708 9¼x264	So. Chicago, III. U5 Clairton, Pa. U5
1%	8½ x312	Clairton, Pa. U5 So. Chicago, Ill. U5	1%	8½x756	So. Chicago, Ill. U5 Clairton, Pa. U5	1 7/3	9 1/2 x 284 9 1/2 x 284	Clairton, Pa. U5
15%	8½x816	Clairton, Pa. U5	1 3/4	8% X276	Clairton, Pa. U5	1 1 1/2	9 % x240	So. Chicago, III. U5 Clairton, Pa. U5
19/9	9x300 9x816	Clairton,Pa. U5 So.Chicago,Ill. U5	1%	9x756	IndianaHarbor, Ind. 1-2 So, Chicago, Ill. U5	1 7/8	10x240	Clairton, Pa. U5
1 5%	,9 ½ x300	Clairton, Pa. U5	78/	9¼ x278	Clairton, Pa. U5 Clairton, Pa. U5	1 %	10x324 10x600	Johnstown, Pa. B2 SparrowsPoint, Md. B2
1 5/6	9½ x300 9½ x816	Clairton, Pa. U5 So. Chicago, Ill. U5	1%	9½×276 9½×756 9¾ ×264	So. Chicago, Ill. U5	1 1 1/2	10x702	So. Chicago, Ill. U5 Munhall, Pa. U5
1 5/ ₈	9 % x288 10x288	Clairton, Pa. U5 Clairton, Pa. U5	13/4	10x264	Clairton, Pa. U5 Clairton, Pa. U5	1 7/4	127364	Johnstown, Pa. B2
1 1 %	10x444	Johnstown, Pa. B2	13/4	10x408 10x516	Johnstown, Pa. B2 Indiana Harbor, Ind. I-2	1 1/3	12×696 12×1260	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
1 5%	10x672 10x816	SparrowsPoint,Md. B2 So.Chicago,Ill. U5	1 9/4	197,924	SparrowsPoint, Md. B2	1.7/8	13x809 14x384	Munhall, Pa. U5 Johnstown, Pa. B2
1%	11x1103	So. Chicago, Ill. U5 Munhall, Pa. U5 Johnstown, Pa. B2	11/4	10x756	So. Chicago, Ill. U5 Indiana Harbor, Ind. I-2	1 7/4	14×684	So. Chicago, Ill. U5
1%	12x444 12x600	Minnequa, Colo. C10	1 8/	11×1025	Munhall, Pa. U5 Johnstown, Pa. B2	1 1/8	15x701	SparrowsPoint, Md. B2 Munhall.Pa. U5
1 1/8	12x804	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	1%	12x408 12x600	Minnequa, Colo. C10	1 1/3	16x384	Johnstown, Pa. B2 So. Chicago, Ill. U5
7.8%	13x934	Munhall, Pa. U5	1 2/.	12×744	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	1 1/3	16×1140	SparrowsPoint, Md. B2
1 1 5%	14x444	Johnstown, Pa. B2 So. Chicago, Ill. U5	1%	12x1380 12 thru 26 x	492 Ind. Harbor, Ind. I-2	1 % 1 % 1 %	17x921	Munhall.Pa. U5 Johnstown.Pa. B2
1 5%	14x1440	SparrowsPoint, Md. B2	1%	13x867	Johnstown, Pa. B2	17/8	18x678	So. Chicago, Ill. U5
1%	15x803 16x444	Munhall, Pa. U5 Johnstown, Pa. B2	134	14%732	So.Chicago, Ill. U5 Sparrows Point, Md. B2	1 % 1 %	18x1140	SparrowsPoint.Md. B2 Munhall.Pa. U5
1 1/8	16x780	So. Chicago, Ill. U5 Sparrows Point, Md. B2	1%	14x1380 15x751	Munhall.Pa. U5	1 1/2	20%384	Johnstown, Pa. B2 So. Chicago, Ill. U5
1%	16x1320 17x1063	Munhall, Pa. U5	1 3/4	16x408	Johnstown, Pa. B2 So. Chicago, Ill. U5	1 7/2	20x1440	SparrowsPoint, Md. B2
1%	18x444	Johnstown, Pa. B2 So. Chicago, Ill. U5	1%	16x1320	SparrowsPoint, Md. B2	1%	21x904 22x384	Munhall.Pa. U5 Johnstown,Pa. B2

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Hot-Rolled Plates, Universal CONTINUED FROM PRECEDING PAGE

Width,		Width, Thickness Max. Length		Width, Thickness Max. Length	
Thickness Max. Length (inches) (inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer	(inches) (inches)	Mill Point, Producer
1 1 1 2 2 x 6 7 2	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	222x372 222x624	Johnstown, Pa. U5 So. Chicago, Ill. U5	2¼20x336 2¼20x558	Johnstown, Pa. B2 So. Chicago, Ill. U5
1 1 1 22x1440 1 1 1 23x896	Munhall, Pa. U5	222x1440	SparrowsPoint, Md. B2	2¼20x1060	SparrowsPoint, Md. B2
1 %	Johnstown, Pa. B2 So. Chicago, Ill. U5	2	Munhall, Pa. U5 Johnstown, Pa. B2	2¼21x722 2¼22x336	Munhall, Pa. U5 Johnstown, Pa. B2
7 7/2 Z4X 144U	SparrowsPoint, Md. B2	224x624	So. Chicago, Ill. U5	2 ¹ / ₄	So. Chicago, Ill. U5
1 7/825x891 1 7/826x384	Munhall, Pa. U5 Johnstown, Pa. B2	224x1440 225x835	SparrowsPoint,Md. B2 Munhall,Pa. U5	2 ½22x965 2 ½23x716	SparrowsPoint,Md. B2 Munhall,Pa, U5
1 %26x666	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	2	Johnstown, Pa. B2	2½24x336 2½24x552	Johnstown, Pa. B2 So. Chicago, Ill. U5
1 % 27x886	Munhall.Pa. U5	226x1440	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	2¼24x1275	SparrowsPoint, Md. B2
1 %28x384 1 %28x660	Johnstown, Pa. B2 So. Chicago, Ill. U5	227x830 228x372	Munhall.Pa. U5 Johnstown,Pa. B2	2¼25x711 2¼26x336	Munhall, Pa. U5 Johnstown, Pa. B2
1 %28x1380	SparrowsPoint, Md. B2 Munhall, Pa. U5	228x624	So. Chicago, Ill. U5	2½26x552	So. Chicago, Ill. U5
1 % 29x882 1 % 30x384	Johnstown, Pa. B2	228x1320 229x826	SparrowsPoint,Md. B2 Munhall,Pa. U5	2½	SparrowsPoint, Md. B2 Munhall, Pa. U5
1 %30x624 1 %30x1380	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	230x372 230x576	Johnstown, Pa. B2 So. Chicago, Ill. U5	2¼28x336 2¼28x546	Johnstown, Pa. B2 So. Chicago, Ill. U5
1 1/831x844	. Munhall, Pa. U5	230x1320	SparrowsPoint, Md. B2	2¼28x1090	SparrowsPoint, Md. B2
1 %32x384 1 %32x1200	Johnstown, Pa. B2 SparrowsPoint, Md. B2	. 231x791 232x372	Munhall, Pa. U5 Johnstown, Pa. B2	2¼29x704 2¼30x336	Munhall, Pa. U5 Johnstown, Pa. B2
1 %33x793 1 %34x384	Munhall, Pa. U5 Johnstown, Pa. B2	232x1140 233x744	SparrowsPoint.Md. B2 Munhall,Pa. U5	2¼30x510 2¼30x1020	So. Chicago, Ill. U5 SparrowsPoint, Md. B2
1 %34x1200	SparrowsPoint, Md. B2	234x372	Johnstown, Pa. B2	2¼31x675	Munhall, Pa. U5
1%36x384 1%36x726	Johnstown, Pa. B2 Munhall, Pa. U5	234x1140 236x372	SparrowsPoint, Md. B2 Johnstown, Pa. B2	2¼32x336 2¼32x955	Johnstown, Pa. B2 SparrowsPoint, Md. B2
1%36X1080	SparrowsPoint,Md. B2 Munhall,Pa. U5	236x681 236x1020	Munhall,Pa. U5 SparrowsPoint,Md. B2	2¼33x632 2¼34x336	Munhall, Pa. U5 Johnstown, Pa. B2
1%38x1080	SparrowsPoint, Md. B2	237x663	Munhall.Pa. U5	2¼34x900	SparrowsPoint.Md. B2
1%39x671 1%40x960	Munhall, Pa. U5 SparrowsPoint, Md. B2	238x1020	SparrowsPoint, Md. B2 Munhall, Pa. U5	2¼35x596 2¼36x336	Munhall, Pa. U5 Johnstown, Pa. B2
1 %41x638	Munhall, Pa. U5 Sparrows Point, Md. B2	239x629 240x900 241x596	SparrowsPoint,Md. B2 Munhall,Pa. U5	2¼36x850 2¼37x564	SparrowsPoint, Md. B2 Munhall, Pa. U5
1%42x960 1%43x608	Munhall, Pa. U5	242x900	SparrowsPoint.Md. B2	2¼38x805	SparrowsPoint, Md. B2
1%44x900	SparrowsPoint, Md. B2 Munhall, Pa. U5	243x571 244x840	Munhall, Pa. U5 SparrowsPoint, Md. B2	2½39x535 2½40x765	Munhall,Pa. U5 SparrowsPoint,Md. B2
1 %46x900	SparrowsPoint, Md. B2	245x545	Munhall, Pa. U5	2¼41x508	Munhall, Pa. U5
1 %	Munhall,Pa. U5 SparrowsPoint,Md. B2	246x840 247x522	SparrowsPoint, Md. B2 Munhall, Pa. U5	2¼42x730 2¼43x485	SparrowsPoint,Md. B2 Munhall,Pa. U5
1 1 %50 X 9 6 0 .	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	2	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	2¼44x700 2¼45x463	SparrowsPoint, Md. B2 Munhall.Pa. U5
1%52x960 1%54x960	SparrowsPoint, Md. B2	Z	SparrowsPoint, Md. B2	2¼46x444	Munhall.Pa. U5
1%56x1080 1%58x1080	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	254x960 256x960	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	2½46x665 2½48x915	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
2	So. Chicago, Ill. U5 Johnstown, Pa. B2	258x960	SparrowsPoint,Md. B2 Clairton,Pa. U5	2¼50x880 2¼52x845	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
26½ x348	Clairton, Pa. U5	2\% \ldots 6\% x336 2\% \ldots 6\% x324 2\% \ldots 6\% x312	Clairton, Pa. U5	2½54x815	SparrowsPoint, Md. B2
26½ x360 26½ x336	IndianaHarbor, Ind. I-2 Clairton, Pa. U5	2½6¾ x312 2½7x300	Clairton, Pa. U5 Clairton, Pa. U5	2¼56x840 2¼58x810	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2
26½x384	IndianaHarbor, Ind. I-2 So. Chicago, Ill. U5	2½7½ x288 2½7½ x276	Clairton, Pa. U5 Clairton, Pa. U5	2 186 1/4 x 300	Clairton, Pa. U5
26 % x312	Clairton, Pa. U5	Z 1/8	Clairton, Pa. U5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Clairton,Pa. U5 Clairton,Pa. U5
26¾ x384 27x300	IndianaHarbor, Ind. I-2 Clairton, Pa. U5	2½8x264 2½8¼x264	Clairton, Pa. U5 Clairton, Pa. U5	2 ½	Clairton,Pa. U5 Clairton,Pa. U5
27x456 27x456	IndianaHarbor, Ind. I-2 Seattle B3	2½8½ x264 2½8¾ x264	Clairton, Pa. U5 Clairton, Pa. U5	2 ½	Clairton, Pa. U5
27x636	So.Chicago, Ill. U5 Clairton, Pa. U5	Z 1/8	Clairton,Pa. U5 Clairton,Pa. U5	$2\frac{5}{18}$	Clairton.Pa. U5 Clairton.Pa. U5
2	Clairton,Pa. U5	2 ½9 ½ x240	Clairton, Pa. U5	2 ½	Clairton.Pa. U5 Clairton.Pa. U5
2	IndianaHarbor, Ind. I-2 So. Chicago, Ill. U5	2 ½	Clairton, Pa. U5 Clairton, Pa. U5	2-8834 x240	Clairton,Pa. U5
27 ½ x276 28x264	Clairton, Pa. U5 Clairton, Pa. U5	2¼6 ½ x528 2¼6 ½ x336	So.Chicago, Ill. U5 Johnstown, Pa. B2	2_{16}^{5}	Clairton, Pa. U5 Clairton, Pa. U5
28x372	Johnstown, Pa. B2	2¼6¼ x312	Clairton,Pa. U5	2 ½	Clairton, Pa. U5 Clairton, Pa. U5
28x408 28x540	Seattle B3 IndianaHarbor, Ind. I-2	2¼6½ x300 2½6½ x552	Clairton, Pa. U5 So. Chicago, Ill. U5	2 1610x204	Clairton.Pa. U5
28x666 28¼x264	So. Chicago, Ill. U5 Clairton, Pa. U5	2¼6¾ x288 2¼7x276	Clairton, Pa. U5 Clairton, Pa. U5	2%6¼x300 2%6½x288	Clairton.Pa. U5 Clairton.Pa. U5
28½ x264	Clairton, Pa. U5 So. Chicago, Ill. U5	2¼7x570	So.Chicago,Ill. U5 Clairton,Pa. U5	2 % 6 ¾ x276 2 % 7x264	Clairton, Pa. U5 Clairton, Pa. U5
28 % x264	Clairton, Pa. U5	2½7½ x264	Clairton, Pa. U5	2%7¼ x264	Clairton, Pa. U5
29x264 29x540	Clairton, Pa. U5 Indiana Harbor, Ind. 1-2	2 ¹ / ₄	So. Chicago, Ill., U5 Clairton, Pa., U5	2%7½ x252 2%7¾ x240	Clairton,Pa. U5 Clairton,Pa. U5
29x660 29¼x264	So.Chicago, Ill. U5 Clairton, Pa. U5	2¼8x252 2¼8x336	Clairton, Pa. U5 Johnstown, Pa. B2	2 %8x240 2 %8¼ x240	Clairton, Pa. U5 Clairton, Pa. U5
2 91/6×240	Clairton, Pa. U5	2¼8x588	So. Chicago, Ill. U5	2%8½ x240	Clairton,Pa. U5
29½x660 29¾x240	So. Chicago, Ill. U5 Clairton, Pa. U5	2¼8¼ x252 2¼ 8¼ x252	Clairton, Pa. U5 Clairton, Pa. U5	2%8% x228 2%9x216	Clairton.Pa. U5 Clairton.Pa. U5
Z	Clairton, Pa. U5 Johnstown, Pa. B2	2¼8½ x588 2¼8¾ x240	So.Chicago, Ill. U5 Clairton, Pa. U5	2%9¼x216	Clairton, Pa. U5
210x372 210x468	IndianaHarbor, Ind. I-2	2 ½9x240	Clairton, Pa. U5	2%9% x204	Clairton, Pa. U5 Clairton, Pa. U5
210x552 210x648	SparrowsPoint, Md. B2 So.Chicago, Ill. U5	2½9½x288	So. Chicago, Ill. U5 Clairton, Pa. U5	2%10x192 2½6 \alpha x468	Clairton,Pa. U5
211x420 211x897	IndianaHarbor, Ind. I-2 Munhall, Pa. U5	2½9½x216	Clairton, Pa. U5 So. Chicago, Ill. U5	2½6½x300	So. Chicago, Ill. U5 Johnstown, Pa. B2
212x372	Johnstown.Pa. B2	2¼9¾ x216 2¼10x204	Clairton,Pa. U5	2½	Clairton,Pa. U5 Clairton,Pa. U5
212x540 212x648	Minnequa, Colo, C10 So, Chicago, Ill. U5	2¼10x336	Clairton, Pa. U5 Johnstown, Pa. B2	2½6½x486 2½6¾x252	So.Chicago, Ill. U5 Clairton, Pa. U5
212x1200 212 thru 26 x	SparrowsPoint.Md. B2	24	So.Chicago.Ill. U5 SparrowsPoint,Md. B2	2½7x252	Clairton, Pa. U5
213x759	Munhall, Pa. U5	2½11x764 2½12x336	Munhall, Pa. U5 Johnstown, Pa. B2	$2\frac{1}{2}$	So. Chicago, III. Uõ Clairton, Pa. Uõ
214x372 214x648	Johnstown, Pa. B2 So. Chicago, Ill. U5	2¼12x576	So. Chicago, Ill. U5	2½7½ x240	Clairton, Pa. U5 So. Chicago, III. U5
214x1200 215x657	SparrowsPoint.Md. B2 Munhall,Pa. U5	2¼12x1440 2¼13x646	SparrowsPoint.Md. B2 Munhall.Pa. U5	2½7¾ x228	Clairton,Pa. U5
216x372 216x636	Johnstown, Pa. B2 So. Chicago, Ill. U5	2¼14x336 2¼14x570	Johnstown, Pa. B2 So. Chicago, Ill. U5	2½8x216 2½8x300	Clairton,Pa. U5 Johnstown,Pa. B2
	SparrowsPoint, Md. B2	2¼14x1440	SparrowsPoint, Md. B2 Munhall, Pa. U5	2½8x528 2½8¼x216	So. Chicago, Ill. U5 Clairton, Pa. U5
217x863 218x372	Munhall.Pa. U5 Johnstown.Pa. B2	2½16x336	Johnstown, Pa., B2	2½8½ x216	Clairton, Pa. U5
218x630 218x1080	So. Chicago. Ill. U5 SparrowsPoint, Md. B2	2¼16x564 2¼16x1325	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	2½8½x528 2½8¾x216	So. Chicago, Ill. U5 Clairton. Pa. U5
219x854 220x372	Munhall, Pa. U5 Johnstown, Pa. B2	2 ¹ / ₄ 17x736 2 ¹ / ₄ 18x336	Munhall, Pa. U5 Johnstown, Pa. B2	2½9x204 2½9x528	Clairton.Pa. U5 So.Chicago.III. U5
Z	So. Chicago, Ill. U5	2¼18x558	So. Chicago, Ill. U5	2½9¼ x204 2½9½ x192	Clairton,Pa. U5 Clairton,Pa. U5
220x1440 221x847	SparrowsPoint,Md. B2 Munhall,Pa. U5	2¼18x1180 2¼19x729	SparrowsPoint, Md. B2 Munhall, Pa. U5	2½9½x522	So. Chicago, Ill. U5



Hot-Rolled Plates, Universal

CONTINUED FROM PRECEDING PAGE

	HOT-	Kollea Pla	tes,	OHIVE	:1201	COMMINGED	FROM PRECEDING PAGE
	Width,	1		Width,		Width,	
	Max. Length	Add Date A. Paralament	Thickness		Adill Bains Bundanes	Thickness Max. Length (inches) (inches)	Mill Point, Producer
(inches)	(inches) 9 % x192	Mill Point, Producer Clairton.Pa. U5	(inches)	12x1440	Mill Point, Producer SparrowsPoint, Md. B2	328x240	Johnstown.Pa. B2
21/2	10x180	Clairton, Pa. U5	2 3/4	14x276	Johnstown, Pa. B2	328x408	So. Chicago, Ill. U5
2 1/2	10X300	Johnstown, Pa. B2 So. Chicago, Ill. U5	2 1/4	14x462 14x1240	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	328x820 329x528	SparrowsPoint,Md. B2 Munhall,Pa. U5
2½	.10x522 .10x920	SparrowsPoint, Md. B2	2 3/4	16x276	Johnstown, Pa. B2	330x240	Johnstown, Pa. B2
21/2	11x688	Munhall, Pa. U5	21/4	16x456	So. Chicago, Ill. U5	330x378	So.Chicago,Ill. U5
2½	.12x300 .12x516	Johnstown, Pa. B2 So. Chicago, Ill. U5		16x1085 18x276	SparrowsPoint,Md. B2 Johnstown,Pa. B2	330x765 331x506	SparrowsPoint,Md. B2 Munhall,Pa. U5
23/0	UPGXZI.	Minnequa, Colo, C10	23/4	18 x 456	So.Chicago,Ill. U5	332x240	Johnstown, Pa. B2
21/2	12x1440 13x582	SparrowsPoint,Md. B2 Munhall.Pa. U5	23/4	18x965 20x276	SparrowsPoint,Md. B2 Johnstown,Pa. B2	332x715 333x474	SparrowsPoint,Md. B2 Munhall,Pa. U5
2½	14x300	Johnstown, Pa. B2	23/4	20x450	So. Chicago, Ill. U5	334x240	Johnstown, Pa. B2
21/2	14x510	So.Chicago, Ill. U5	2 3/4	20x865 22x276	SparrowsPoint,Md. B2 Johnstown,Pa. B2	334x675 335x447	SparrowsPoint,Md. B2 Munhall,Pa. U5
2½	14x1360 15x505	SparrowsPoint,Md. B2 Munhall,Pa. U5	23/4	22x450	So. Chicago, Ill. U5	336x240	Johnstown, Pa. B2
21/2	16x300	Johnstown, Pa. B2	2 3/4	22x790	SparrowsPoint, Md. B2	336x640	SparrowsPoint,Md. B2
21/2	16x504 16x1190	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	2 3/4	24x276 24x450	Johnstown, Pa. B2 So. Chicago, Ill. U5	337x423 338x604	Munhall.Pa. U5 SparrowsPoint,Md. B2
21/2	17x662	Munhall, Pa. U5	2 1/4	24x1040	SparrowsPoint, Md. B2	339x401	Munhall,Pa. U5
21/2	18x300	Johnstown, Pa. B2 So. Chicago, Ill. U5		26x276 26x450	Johnstown, Pa. B2 So. Chicago, Ill. U5	340x575 341x381	SparrowsPoint,Md. B2 Munhall,Pa. U5
21/2	18x504 18x1060	SparrowsPoint, Md. B2	2 3/4	26x965	SparrowsPoint, Md. B2	342x545	SparrowsPoint, Md. B2
21/2	19x656	Munhall,Pa. U5	2 1/4	28x276 28x444	Johnstown, Pa. B2 So. Chicago, Ill. U5	343x364 344x520	Munhall, Pa. U5 SparrowsPoint, Md. B2
21/2	20x300 20x498	Johnstown, Pa. B2 So. Chicago, Ill. U5	23/4	28x895	SparrowsPoint, Md. B2	345x347	Munhall,Pa. U5
21/2	20x955	SparrowsPoint,Md. B2	23/4	30x276	Johnstown, Pa. B2	346x333 346x500	Munhall, Pa. U5 SparrowsPoint, Md. B2
2½	21x649	Munhall,Pa. U5 Johnstown,Pa. B2	2%	30x414 30x835	So. Chicago, Ill. U5 SparrowsPoint, Md. B2	348x690	SparrowsPoint, Md. B2
21/2	22x300 22x498	So.Chicago, Ill. U5	23/4	32x276	Johnstown, Pa. B2	350x660	SparrowsPoint, Md. B2
21/2	22x870	SparrowsPoint,Md. B2 Munhall,Pa. U5	2 %	32x785 34x276	SparrowsPoint,Md. B2 Johnstown,Pa. B2	352x635 354x610	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
21/2	23x644 24x300	Johnstown, Pa. B2	2¾	34x710	SparrowsPoint, Md. B2	356x630	SparrowsPoint, Md. B2
21/2	24×492	So. Chicago, Ill. U5	2¾	36x276	Johnstown,Pa. B2 SparrowsPoint,Md. B2	358x610	SparrowsPoint,Md. B2
21/2	24x1150 25x640	SparrowsPoint,Md. B2 Munhall,Pa. U5	23/4	36x695	SparrowsPoint,Md. B2	3½7½x372 3½8x372	So.Chicago, Ill. U5 So.Chicago, Ill. U5
21/2	26x300	Johnstown, Pa. B2	23/4	40x625	SparrowsPoint, Md. B2	$3\frac{1}{2}$ $8\frac{1}{2}$ x372	So. Chicago, Ill. U5
21/2	26x492 26x1060	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	2 3/4	42x595 44x570	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	3½9x366 3½9½x366	So.Chicago,Ill. U5 So.Chicago,Ill. U5
21/6	27x637	Munhall, Pa. U5	23/4	46x545	SparrowsPoint, Md. B2	3½10x366	So. Chicago, Ill. U5
21/2	28x300	Johnstown, Pa. B2		48 x7 50	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	3½10x655	SparrowsPoint, Md. B2
249	28x492 28x985	So.Chicago, Ill. U5 SparrowsPoint, Md. B2	23/4	52x690	SparrowsPoint,Md. B2	3½11x491 3½12x366	Munhall,Pa. U5 So.Chicago,Ill. U5
21/2	29x634	Munhall, Pa. U5	2 1/4	54x665 56x690	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2	3 ½12x1135	SparrowsPoint,Md. B2
2½	30x300 30x456	Johnstown, Pa. B2 So. Chicago, Ill. U5	234	58x665	SparrowsPoint, Md. B2	3 ½13x415 3 ½14x360	Munhall, Pa. U5 So. Chicago, III. U5
21/2	30x920	SparrowsPoint, Md. B2	2 1/8	61/4 x240	Clairton, Pa. U5	3½14x973	SparrowsPoint, Md. B2
21/2	31X6U6	Munhall,Pa. U5 Johnstown,Pa. B2	2 % 2 %	6 ½ x240 6 ¾ x228	Clairton,Pa. U5 Clairton,Pa. U5	3½15x360 3½16x354	Munhall, Pa. U5
$2\frac{1}{2}$	32x300 32x860	SparrowsPoint, Md. B2	2 1/8	7XZ16	Clairton, Pa. U5	3½16x850	So.Chicago,Ill, U5 SparrowsPoint,Md, B2
2½	33 x 568	Munhall, Pa. U5	2 1/8 2 1/8	7½ x216 7½ x192	Clairton, Pa. U5 Clairton, Pa. U5	3 ½	Munhall, Pa. U5
$2\frac{1}{2}$ $2\frac{1}{2}$	34x300 34x810	Johnstown, Pa. B2 SparrowsPoint, Md. B2	21/8	7% X19Z	Clairton, Pa. U5	3 ½18x354 3 ½18x755	So.Chicago,Ill. U5 SparrowsPoint,Md. B2
2 1/2	35x536	Munhall,Pa. U5	2 1/8	8x192	Clairton, Pa. U5	3½19x468	Munhall, Pa. U5
21/4	36x300 36x765	Johnstown, Pa. B2 SparrowsPoint, Md. B2	3	6½ x228	Clairton, Pa. U5 Johnstown, Pa. B2	3½20x348 3½20x680	So.Chicago,Ill. U5 SparrowsPoint,Md. B2
21/2	37x507	Munhall, Pa. U5	3	6½ x240 6½ x228	Clairton,Pa. U5	3½21x464	Munhall, Pa. U5
216	38×725	SparrowsPoint,Md. B2 Munhall,Pa. U5	3	6% x216	Clairton, Pa. U5 Clairton, Pa. U5	3½22x348 3½22x620	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
21/2	39x481 40x690	SparrowsPoint, Md. B2	3	7x204 7¼x204	Clairton,Pa. U5	3½23x460	Munhall, Pa. U5
21/2	41x458	Munhall,Pa. U5 SparrowsPoint,Md. B2	3	7½x192 7½x438	Clairton, Pa. U5	3½24x348 3½24x820	So.Chicago, Ill. U5 SparrowsPoint, Md. B2
$2\frac{1}{2}$	42x655 43x437	Munhall.Pa. U5	3	7 % x180	So.Chicago, Ill. U5 Clairton, Pa. U5	3½25x457	Munhall, Pa. U5
21/2	44x625	SparrowsPoint, Md. B2 Munhall, Pa. U5	3	8x180	Clairton,Pa. U5	3½26x348 3½26x760	So.Chicago,Ill. U5 SparrowsPoint,Md. B2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	45x417 46x400	Munhall, Pa. U5	3	8x240 8x438	Johnstown, Pa. B2 So. Chicago, Ill. U5	3½27x455	Munhall, Pa. U5
21/2	46X600	SparrowsPoint, Md. BZ	3	8½x432	So.Chicago, Ill. U5	3½28x348	So.Chicago, Ill. U5
$2\frac{1}{2}$	48x825 50x790	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	3	9x432 9½x432	So. Chicago, Ill. U5 So. Chicago, Ill. U5	3½28x700 3½29x453	SparrowsPoint,Md. B2 Munhall,Pa. U5
21/2	52x760	SparrowsPoint, Md. B2	3	10x240	Johnstown, Pa. B2	3½30x324	So.Chicago, Ill. U5
21/2	54x730	SparrowsPoint, Md. B2 SparrowsPoint, Md. B2	3	10x432 10x765	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	3½30x655 3½31x433	SparrowsPoint,Md. B2 Munhall,Pa. U5
2½	56x760 58x730	SparrowsPoint, Md. B2	3	11x573	Munhall, Pa. U5	3 ½32x615	SparrowsPoint,Md. B2
	6¼x264	Clairton, Pa. U5	3	12x240	Johnstown, Pa. B2 So. Chicago, Ill. U5	3½33x406 3½34x580	Munhall, Pa. U5 SparrowsPoint, Md. B2
2 5/8	6½ x252	Clairton, Pa. U5 Clairton, Pa. U5	3	12x426 12x1325	SparrowsPoint,Md. B2	3 ½35x383	Munhall, Pa. U5
2 5/8 2 5/8	6% x240	Clairton, Pa. U5	3	13x485	Munhall, Pa. U5 Johnstown, Pa. B2	3½36x545 3½37x362	SparrowsPoint,Md. B2 Munhall,Pa. U5
9 5/2	71/4 x288	Clairton, Pa. U5	3	14x240 14x420	So.Chicago, Ill. U5	3 ½38x520	SparrowsPoint,Md. B2
25%	7½x228	Clairton,Pa. U5 Clairton,Pa. U5	3	14x1135	SparrowsPoint, Md. B2	3½39x344	Munhall, Pa. U5
2 % 2 %	7¾ x204 8x204	Clairton, Pa. U5	3	15x420 16x240	Munhall, Pa. U5 Johnstown, Pa. B2	3½40x490 3½41x327	SparrowsPoint,Md. B2 Munhall,Pa. U5
		So.Chicago, Ill. U5	3	16x420	So. Chicago, Ill. U5	3 ½42x470	Munhall.Pa. U5 SparrowsPoint.Md. B2
2%	6½x276	Johnstown, Pa. B2	3	16x995 17x552	SparrowsPoint,Md. B2 Munhall,Pa. U5	3½43x312 3½44x445	Munhall, Pa. U5 SparrowsPoint, Md. B2
23/4	6½ x252	Clairton, Pa. U5 Clairton, Pa. U5	3	18x240	Johnstown, Pa. B2	3 ½45x298	Munhall.Pa. U5
9.3/4	61/x444	So.Chicago, Ill. U5	3	18x414 18x880	So. Chicago, Ill. U5	3½46x286 3½46x425	Munhall,Pa. U5 SparrowsPoint,Md. B2
23/4	6% x240	Clairton, Pa. U5 Clairton, Pa. U5	9	107546	SparrowsPoint,Md. B2 Munhall,Pa. U5	3½48x590	SparrowsPoint, Md. B2
2 %	7X46Z	So.Chicago, Ill. U5	3	20x240 20x414	Johnstown, Pa. B2 So. Chicago, Ill. U5	3 ½50x565 3 ½52x545	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
23/4	714 x216	Clairton, Pa. U5 Clairton, Pa. U5	3	20x414	SparrowsPoint, Md. B2	3½54x525	SparrowsPoint,Md. B2
2%	7½x480	So. Chicago, Ill. U5	3	21x541	Munhall, Pa. U5 Johnstown, Pa. B2	3½56x540 3½58x520	SparrowsPoint,Md. B2 SparrowsPoint,Md. B2
2 3/4 2 3/4 2 3/4	7 % x192	Clairton, Pa. U5 Clairton, Pa. U5	3	22x240 22x408	So. Chicago, Ill. U5	0 72	Sparrowsi Oint, Mu. BZ
2 %	8XZ10	Johnstown, Pa. B2	3	22x720 23x537	SparrowsPoint, Md. B2		
23/4	8x480	So. Chicago, Ill. U5	3	23x537	Munhall, Pa. U5 Johnstown, Pa. B2		
2 3/4	81/2 x474	So.Chicago, Ill. U5 So.Chicago, Ill. U5	3	24x408	So. Chicago, Ill. U5		rsal plates are lim- inches and less in
23/4	9½x474 10x276	So. Chicago, Ill. U5	3	24x960	SparrowsPoint, Md. B2 Munhall, Pa. U5	thickness. For	information about
23/4	10x276 10x474	Johnstown, Pa. B2 So. Chicago, Ill. U5	3	25x533	Johnstown, Pa. B2	thicker plates m	ake inquiry of the in the preceding
2 3/4	10x835	SparrowsPoint, Md. B2	3	26x408	So.Chicago,Ill. U5 SparrowsPoint,Md. B2	columns.	in the preceding
2.3/4	12x276	Johnstown, Pa. B2 So. Chicago, Ill. U5	3	26x\\\ 27x5\\\ 31	Munhall, Pa. U5		
2¾	144400	DO. O. LONGO JALL.					

HOT-ROLLED BARS (Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

Flats_

Sizes
Produced
049-1½ x 1 %-4 Tacony, Phila. D4
.100-1½ x 2 Economy, Pa. B14
1/8 x 5/8 Knoxville, Tenn. K6
1/8 x 3/4 Knoxville, Tenn. K6 1/8 x 7/8 Knoxville, Tenn. K6
1/8 x 1Knoxville, Tenn. K6
1/8 x 1/4 Knoxville, Tenn. K6 1/4 x 1/4 Knoxville, Tenn. K6
1/8 x 1 1/8Knoxville, Tenn. K6 1/8 x 1 1/2Knoxville, Tenn. K6
1/8 x 1 5/8 Knoxville, Tenn. K6 1/8 x 1 3/4 Knoxville, Tenn. K6
1% x 2 Knoxville, Tenn. K6
1/8 x 2 1/4Knoxville, Tenn. K6 1/8 x 2 1/2Knoxville, Tenn. K6
1/8 x 2 3/4Knoxville, Tenn. K6 1/8 x 3Knoxville, Tenn. K6
1%-2 x 3 Economy, Pa. B14 9-2½ x 4 Economy, Pa. B14
.150-2½ x 5Economy, Pa. B14
.150-2½ x 6 Economy, Pa. B14
\$ x \$ Knoxville, Tenn. K6
18 X 34-134Buffalo R2
18 x % Knoxville, Tenn. K6 18 x 1 Knoxville, Tenn. K6
x 1 Tonawanda, N.Y. B12 x 1 1/8 Knoxville, Tenn. K6
16 x 1 1/8Tonawanda, N.Y. B12 2 x 1 1/4Knoxville, Tenn. K6
X 1
16 x 1½Knoxville, Tenn. K6 18 x 1%Knoxville, Tenn. K6
3 x 1%Knoxville, Tenn. Ko 3 x 14Knoxville, Tenn. K6 3 x 14-24Fontana, Calif. K1
049-1-62b x 2 + 8 Tacony, Finia. D4 049-1-12 x 1 1 - 4 Tacony, Finia. D4 049-1-12 x 1 1 - 4 Tacony, Finia. D4 049-1-12 x 1 1 - 4 Tacony, Finia. D4 049-1-12 x 1 1 - 4 Tacony, Finia. D4 049-1-12 x 1 1 - 4 Tacony, Finia. D4 100-1-12 x 2 Economy, Fa. B14 12 x 2 Economy, Fa. B14 12 x 3 Knoxville, Tenn. K6 12 x 1 Knoxville, Tenn. K6 13 x 1 Knoxville, Tenn. K6 13 x 1 Knoxville, Tenn. K6 14 x 1 Knoxville, Tenn. K6 15 x 1 Knoxville, Tenn. K6 16 x 1 Knoxville, Tenn. K6 17 x 1 Knoxville, Tenn. K6 18 x 2 Knoxville, Tenn. K6 18 x 2 Knoxville, Tenn. K6 18 x 2 Economy, Fa. B14 150-2-12 x 1 Econom
x 2Tonawanda, N.Y. B12
16 x 2½Knoxville, Tenn. Ko 38 x 2½Knoxville, Tenn. K6
Knoxville, Tenn. K6
18 x 3¼Knoxville, Tenn. K6
18 x 3%Knoxville, Tenn. K6
136 x 4Knoxville, Tenn. K6
% x 5Knoxville, Tenn. K6
3 - ½ x 1 % Marion, O. P11
16-72 x 3 Marion, O. P11
18 - 1/2 x 3 1/4 Marion, O. P11 16 - 1/2 x 3 1/2 Marion, O. P11 15 - 1/2 x 3 3/4 Marion, O. P11 15 - 1/2 x 3 3/4 Marion, O. P11
18-72 x 3 ½ Marion, O. P11 18-12 x 3 ½ Marion, O. P11 18-12 x 4 Marion, O. P11 18-12 x 4 Marion, O. P11
3-5% x 2½
3 - 4 x 1-3 . AlabamaCity, Ala. R2
16-4 x 14Marion, O. P11
3-4 x 1½ Marion, O. P11 2-3 x 15 Marion, O. P11
3 × 17 Marion, O. P11
18 -% x 2
\$\frac{1}{2} \times \frac{3}{2} \times \text{Marion, O. P11}\$ \$\frac{1}{2} \times \frac{1}{2} \times \text{Marion, O. P11}\$
13-2499 x 2-3Youngstown U5
13 4 inc. x % Ind. Harbor, Ind. I-2
13-147 x ½-163 Gary, Ind. U5
13-2½ x ½-6 Johnstown, Pa. B2
13-2½ x 1-6 SouthChicago, Ill. W14 13-3½ inc. x 1-6 Ind. Harb., Ind. I-2
32 X %-1%Bullalo RZ
7_19 v 27 Voungstown II5
150 x 1%-2%Fontana, Calif. K1
15 x 3Fontana, Calif. K1 15 x 3 ½Fontana, Calif. K1
15 x 4Fontana, Calif. K1
14 x %Youngstown U5 14 x 25Youngstown U5
1/4 x 1/2-3/4
¼ x ½-6Atlanta A11 ¼ x 5Knoxville, Tenn. K6
¼ x %
1/2 x 3/4 Minnequa, Colo. C10
14 x 14Tonawanda, N.Y. B12 14 x 14Torrance, Calif. C11
¼ x ¾-1½Buffalo R2 ¼ x ¾-2¼Milton, Pa. B6
236-508 2½-6 Weirtn, W. Va. W6 13 x 1 3/-2 4 Fontana, Calif. K1 13 x 3 Fontana, Calif. K1 14 x 3 Fontana, Calif. K1 15 x 4 Fontana, Calif. K1 16 x 5/4 X 5/5 Youngstown U5 17 x 5/2 Alton, Ill. L1 17 x 5/4 Knoxville, Tenn. K6 17 x 5/4 Knoxville, Tenn. K6 18 x 5/4 Minnequa, Colo. Clo 18 x 5/4 Minnequa, Colo. Clo 19 x 5/4 Minnequa, Colo. Clo 10 x 5/4 Minnequa, Colo. Clo
½ x 1Knoxville, Tenn. K6

Sizes	
(inches)	Mill Point, Produce
益 x 1	Mill Foint, Froduce Minnequa, Colo. C1 Portland, Oreg. O Seattle N1. Tonawanda, N. N. B1. 2
1/4 X 1	Seattle N1
¼ x 1 . ¼ x 1 /8	Tonawanda, N.Y. B1
14 x 1 1/8	Knoxville, Tenn. K
% x 1 % % x 1 % x 1 % % x 1 % % x 1 % % x 1 % x 1 % % x 1 %	Minnequa, Colo. C1
¼ x 1 ½ ¼ x 1 ½ ¼ x 1 ½	Tonawanda, N.Y. B1
1/4 x 1 1/4	Knoxville, Tenn. K
1/4 x 1 1/4 1/4 x 1 1/4	Portland.Oreg. O
1/4 X 1 1/4	Seattle N1
1/4 X 1 1/4	Knoxville, Tenn. K
% x 1 % % x 1 % x 1 % % x 1 % % x 1 % % x 1 % x 1 % % x 1 %	Minnequa, Colo. C1
1/4 X 1 3/4	Tonawanda, N.Y. B1
AX 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Knoxville, Tenn. Ke
1/4 x 1 1/2	Portland, Oreg. O
14 X 1 1/2	Tonawanda N Y RI
14 x 1 1 7	-3½Buffalo R
1/4 X 1 5/8	Knoxville, Tenn. Ko
1/4 x 1 1/8	Portland,Oreg. O
1/4 X 1 % 1/4 X 1 %	Knoxville, Tenn. Kt
1/4 x 1 1/4	Portland, Oreg. O
1/4 X 1 1/4 1/4 X 1 3/4	Tonawanda.N.Y. B1
1/4 x 1 %	-2%Fontana, Calif. K
1/4 x 2 .	
1/4 X Z	Portland, Oreg. O
1/4 x 2 1/4 x 2	SouthChicago, Ill. R
1/ x 2 .	Tonawanda, N.Y. Bl
1/4 x 2-2 1/4 x 2 1/4	Knoxville, Tenn. Ke
1/4 x 2 1/4	Knoxville, Tenn. Ke
1/4 x 2 1/4 1/4 x 2 1/4	Seattle N14
1/4 x 2 1/4 1/4 x 2 1/2	Tonawanda, N.Y. B12
1/4 x 2 1/2	Minnequa, Colo. C10
1/4 x 2 1/2 1/4 x 2 1/2	Portland, Oreg. 04
1/4 x 2 1/2	Tonawanda, N.Y. B12
1/4 x 2 3/4 1/4 x 2 3/4	Knoxville, Tenn. Ke
14 x 2 ½ 15 x 2 ½ 16 x 2 ½ 17 x 2 ½ 18	Portland,Oreg. O4
1/4 x 2 % 1/4 x 2 %	Tonawanda.N.Y. B12
1/4 x 3	Fontana, Calif. Kl
1/4 x 3 .	Minnequa, Colo, C10
1/4 x 3	Portland,Oreg. 04
¼ x 3 .	Tonawanda, N.Y. B12
1/4 X 3-6	Fontana, Calif. K1
1/4 x 3 1/4 1/4 x 3 1/4 1/4 x 3 1/4 1/4 x 3 1/2	Minnequa, Colo. C10
1/4 X 3 1/4	Fontana Calif Ki
1/4 x 3 1/2	Knoxville, Tenn. K6
1/4 x 3 1/2 1/4 x 3 1/4	Minnequa, Colo. C10
1/4 x 3 1/2 1/4 x 3 1/2	Seattle N14
14 x 3 ½ 14 x 3 %	Knoxville, Tenn. K6
1/4 x 3 %	Tonawanda, N.Y. B12
½ x 4 ¼ x 4	Knoxville.Tenn. K6
½ x 4 . ¼ x 4 .	Minnequa, Colo. C10
14 X 4	Sortland,Oreg. 04
1/4 × 4 .	Tonawanda, N.Y. B12
1/4 X 4 1/2 1/4 X 4 1/2	Minnequa, Colo. C10
14 x 5 1/2 14 x 5 1/4 14 x 5 1/4 14 x 5 1/2 14 x 5 1/2	Portland Oreg O4
½ x 5	Knoxville, Tenn. K6 Minnequa, Colo. C10 Portland, Oreg. O4 Minnequa, Colo. C10
1/4 x 5 1/2	Portland,Oreg. 04
½ x 5½ ½ x 6	Fortiand, Oreg. 04
½ x 6 .	Minnegua Colo C10
14-16 X	Portland, Oreg. 04 So. Chicago, Ill. R2 Pittsburg, Calif. C11
1/4-% X 1 1/4-% X 1	. So.Chicago, III. R2 . Pittsburg, Calif. C11 . SouthChicago, III. R2 . SouthChicago, III. R2 . SouthChicago, III. R2 . Marion, O. P11
14-% x 1	
14-% x 4 14-% x 4	4 Marion, O. P11
4 x 6 14 - 15 x 15 x 15 14 - 15 x 15 x 15 14 - 15 x 15	
$\frac{1}{4} - \frac{1}{8} \times 5$	o
1/4-1/2 X 3	%Pittsburg, Calif. C11
位在	
1/4 - 1/2 x 1 1/4 - 1/2 x 1 1/4 - 1/2 x 1	SouthChicago,Ill. R2Torrance,Calif. C11 %SouthChicago,Ill. R2
¼-½ x 1 ¼-½ x 1 ¼-½ x 1	SouthChicago, Ill. R2
¼-½ x 1 ¼-½ x 3	1/4 Torrance, Calif. C11 1/4 -4 .Pittsburg, Calif. C11
	¼-4 .Pittsburg,Calif. C11 ⅙Pittsburg,Calif. C11

Sizes Produced
(inches) Mill Point, Producer
1/ 9 w 11/ Distabase G-1/6 Gra
\(4-\frac{1}{6} \times 11\frac{1}{4} \) . Pittsburg, Calif. C11 \(4-\frac{1}{6} \) inc. x \(\) Ind. Harbor, Ind. 1-2 \(4-\frac{1}{6} \) x \(\frac{1}{6} \) MansasCity, Mo. S5 \(4-\frac{1}{6} \) x 1 \(\frac{1}{6} \) . Pittsburg, Calif. C11 \(4-\frac{1}{6} \) x 1 \(\frac{1}{6} \) . Pittsburg, Calif. G11 \(4-\frac{1}{6} \) x 1 \(\frac{1}{6} \) . Pittsburg, Calif. G11 \(4-\frac{1}{6} \) x 1 \(\frac{1}{6} \) . To rrance, Calif. G11 \(4-\frac{1}{6} \) x 1 \(\frac{1}{6} \) . To rrance, Calif. G11 \(4-\frac{1}{6} \) x 1 \(4-\frac{1}{6} \) . To relate the calif. J7 \(4-\frac{1}{6} \) x 1 - 4 \(4-\frac{1}{6} \) . Niles Calif. J7 \(4-\frac{1}{6} \) x 1 - 4 \(4-\frac{1}{6} \) . To relate the calif. J7
14-5 x 34-6 KansasCity, Mo. S5 14-5 x 15 Pittsburg, Calif. C11
14-% x 1 1/2 Torrance, Calif. C11
14-34 x 11/2-3 .Pittsburg, Calif. C11
1/4-3/4 x 13/4 Torrance, Calif. C11 1/4-1 x 1-4 Emeryville, Calif. J7
14-1 x 1-4½ Niles, Calif. P1
1/4-1 x 2 Torrance, Calif. C11
$\begin{array}{llllllllllllllllllllllllllllllllllll$
4-1 x 3 Torrance, Calif. Cl1 4-1 x 3 ½ Torrance, Calif. Cl1 4-1 x 4 Torrance, Calif. Cl1 4-1 x 4-6 AlabamaCity, Ala, R2 4-1 ½ x 2-2 7 So, Chicago, Ill. R2
1/4-1 x 3 1/2 Torrance, Calif. C11
4-1 x 4-6 Alahama City Ala R2
1
14-11/2 x 12-6 SanFrancisco B3
$\begin{array}{llllllllllllllllllllllllllllllllllll$
1/4-1 1/2 x 2 1/2-6 Aliquippa, Pa. J5
¼-1½ x 3-3 ¼ So. Chicago, Ill. R2
4-1% x 2-331 Duqueene Pe II5
4-1% x 2-331 Gary Ind U5
14-134 x 2-311 Youngstown U5
¼-2 x ½-4½ LosAngeles B3
14-2 x %-6 Seattle B3
44-14 x 2-331 Gary, Ind. U5 4-18 x 2-331 Youngstown U5 4-2 x 4-44 LosAngeles B3 4-2 x 5-6 Seattle B3 4-2 x 25 Cleveland R2 4-2 x 3½-3½ So. Chicago, Ill. R2
4-2 x ½-4½ -6 Seattle B3 4-2 x 2% -6 Seattle B3 4-2 x 28 -6 Seattle B3 4-2 x 4-5 SouthChicago, Ill. R2 4-2 x 4-5 SouthChicago, Ill. R2 4-2 x 4-5 SouthChicago, Ill. R2 4-2 x 2 x 2-6 SouthChicago, Ill. R2 4-2 x 2 x 2-6 SouthChicago, Ill. R2 4-2 x 2 x 3-6 SouthChicago, Ill. R2 4-2 x 2 x 3-6 SouthChicago, Ill. R2 4-2 x 2 x 3-6 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-6 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 4-3 x 3 x 3 x 3-5 SouthChicago, Ill. R2 5 x 3 x 3 x 1 x 2 x 3 x 3 x 5 SouthChicago, Ill. R2 5 x 1 x 3 x 3 x 5 SouthChicago, Ill. R2 5 x 3 x 3 x 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 5 SouthChicago, Ill. R2 5 x 4 x 2 SouthChicago, Ill. R2 5 x 4 x 2 SouthChicago, Ill. R2 5 x 6 SouthChicago, Ill. R2 5 SouthCh
4-2% x 2% -2% Cleveland R2
14-2 x 533-6 Voungetown U
14-3 x 31/2-5 7 Gary Ind 115
$\frac{1}{4} - 3 \times 5 = 5 \times 5 = 5 \times 2 \times 3 \times 5 = 5 \times 3 \times$
4-3 x 533-6 Gary, Ind. U5
4-378 X 3½-578 .Clairton,Pa. U5
4-3 x 55-5% .Clairton.Pa. 115
14-318 x 55-5-51/2 . Youngstown U5
14-316 x 533-6 Clairton, Pa. U5
4-4 x 34-6 Ecorse, Mich. G5
17 x 25 Voungetown U5
X 34-11/2 Buffalo R2
32 x 1 18-2 18 Cleveland R2
32 X 132-312 Buffalo R2
X3Fontana Calif K1
33 x 3½Fontana, Calif. K1
33 x 3½ Fontana, Calif. K1 45 x 4 Fontana, Calif. K1 53 x 4½ Fontana, Calif. K1 54 x 4½ Fontana, Calif. K1 55 x 4½ Minnequa, Colo. C10
33 X 6 Fontana Calif. Ki
52 A 0 Fontana, Calif, K1 fx X ½ Minnequa, Colo. C10 fx X % Knoxville, Tenn. K6 fx X % Minnequa, Colo. C10 fx X % Atlanta A11 fx X % Knoxville, Tenn. K6 fx X % Minnequa, Colo. C10
% X % Knoxville, Tenn. K6 % Minnequa, Colo. Cilo % X % Atlanta A11 % X % Knoxville, Tenn. K6 % X % Minnequa, Colo. Cilo % X % Mintequa, Colo. Cilo % X % Mintegua X % Mintegua Mintegua X % Mintegua Mintegua X % Mintegua Mintegua X % Mintegua Mintegua X
18 × 78 · · · · · · Minnequa, Colo. C10
fs x %Knoxville, Tenn. K6
15 x 34 - 2
16 x % <t< td=""></t<>
16 TEMOXVIIIC, I CHIII. AG
$f_{\rm g} \times 1$ Minnequa, Colo. C10 $f_{\rm g} \times 1$ Seattle N14 $f_{\rm g} \times 1$ Tonawanda, N.Y. B12
To x 1 Tonawanda, N.Y. B12
fs x 1/8
fa x 1 1/8 Tonawanda, N.Y. B12
fs x 1-2/5
16 x 1½Minnequa,Colo. C10 13 x 1½Seattle N14
& X 11/4 Tonawanda N V P19
18 x 1%Knoxville, Tenn. K6
fr x 1%Minnequa, Colo. C10 fr x 1%Tonawanda, N.Y. B12
X 1% Tonawanda, N.Y. B12
$f_8 \times 1\frac{1}{2}$ Minnequa, Colo. C10 $f_8 \times 1\frac{1}{2}$ Portland, Oreg. O4
for x 1½Portland, Oreg. O4
18 x 11/2 Tonawanda, N.Y. B12
\$\begin{align*} \text{f}_8 \times 1 \\ \text{f}_8 \times 1 \
fo x 1%Minnequa, Colo. C10
16 x 1% Portland, Oreg. 04 16 x 1% Knoxville, Tenn. K6 16 x 1% Minnequa, Colo. C10
15 x 1%Minnequa, Colo. C10 16 x 1%Portland, Oreg. O4
18 x 1 %Portland, Oreg. 04 18 x 1 % Seattle N14 18 x 1 % Tonawanda, N.Y. B12
18 x 1 %
% x 1% Seattle N14 % x 1% Tonawanda, N.Y. B12 % x 1% -2% Fontana, Calif. K1
x 1 % Knoxville, Tenn. K6 # x 1 % Minnequa, Colo. Clo # x 1 % Minnequa, Colo. Clo # x 1 % Knoxville, Tenn. K6 # x 1 ½ Knoxville, Tenn. K6 # x 1 ½ Minnequa, Colo. Clo # x 1 ½ Minnequa, Colo. Clo # x 1 ½ More Nortland, Oreg. O4 # x 1 ½ Seattle N14 # x 1 ½ Tonawanda, N.Y. B12 # x 1 ½ Tonawanda, N.Y. B12 # x 1 ½ Minnequa, Colo. Clo # x 1 ½ Minnequa, Colo. Clo # x 1 ½ Minnequa, Colo. Clo # x 1 ½ Knoxville, Tenn. K6 # x 1 ½ Fortland, Oreg. O4 # x 1 ½ Fortland, N.Y. B12 # x 1 ½ Tonawanda, N.Y. B12 # x 1 ½ Fontana, Calif. K1 # x 2 Knoxville, Tenn. K6 # x 2 Minnequa, Colo. Clo # x 2 Minnequa, Colo. Clo # x 2 Minnequa, Colo. Clo # x 2 Seattle N14
18 x 2Portland, Oreg. O4
16 x 2 Seattle N14
16 x 2 Seattle N14 Seat
5 x 24 Knoxville Tenn K6
15 x 24 Knoxvine, Tenn. K6
5 x 21/4Portland, Oreg. O4
16 x 21/4 Seattle N14

Sizes Produced (inches)	Mill Point, Produce
fe x 2%	Tonawanda, N.Y. B1
16 X 21/2	Tonawanda, N.Y. B1: Knoxville, Tenn. Ko Minnequa, Colo. C10
16 X 2 1/2	Knoxville, Tenn. K. Minnequa, Colo. C14 Portland, Oreg. O Seattle N1- Tonawanda, N. Y. B12 Knoxville, Tenn. K. Minnequa, Colo. C14 Portland, Oreg. O Tonawanda, N. Y. B12 Fontana, Calif. K. Knoxville, Tenn. K. Minnequa, Colo. C14 Portland, Oreg. O Seattle N14 Fontana, Calif. K Fontana, Calif. K Fontana, Calif. K Knoxville, Tenn. K Knoxville, Tenn. K Fontana, Calif. K Knoxville, Tenn. K Minnequa, Colo. C14 Portland, Oreg. O Seattle N14 Tonawanda, N. Y. B12 Tonawanda, N. Y. B13 Knoxville, Tenn. K Knoxville, Tenn. K Seattle N14 Tonawanda, N. Y. B13 Knoxville, Tenn. K.
16 X 21/2	Seattle N1
16 X 21/2	Tonawanda, N.Y. B1
18 X 2 3/4	Minnequa, Colo. C10
18 X 234	Portland, Oreg. Of
16 X 3 .	Fontana.Calif. Ki
16 x 3 .	Knoxville, Tenn. Ke
5 × 3	Portland Oreg Od
15 x 3 .	Seattle N14
18 X 3 .	Tonawanda, N.Y. B12
18 x 31/4	Knoxville, Tenn. Ke
5 x 3 1/2	Fontana, Calif. K1
16 X 3 1/2 5 X 3 1/4	Minnegua Colo. C10
16 x 3 1/2	Portland,Oreg. 04
% X 3 ½	Tonawanda N V B19
16 x 334	Knoxville, Tenn. Ke
16 x 3%	Tonawanda, N.Y. B12
16 X 4 .	Knoxville, Tenn. Ke
5 x 4	Minnequa, Colo. C10
₽ X 4 .	Portland, Oreg. 04
16 x 4 .	Tonawanda, N.Y. B12
5 × 4½	Knoxville, Tenn. K6
5 X 4 1/2	Portland,Oreg. O4
1 x 4 1/2-	5Fontana, Calif. K1
18 X D	Minnegua, Colo, C10
8 x 5 .	Portland,Oreg. 04
& X 5 1/2	Portland Oreg. O4
5 x 6 .	Fontana, Calif. K1
5 x 6	Minnequa, Colo. C10
5 x 6 ½	So.Chicago, Ill. R2
16-13 x 1	%-3½Buffalo R2
5 2 X 5	So Chicago III R2
13 x 13-1	&Buffalo R2
1 x 1-2 f	Minnegua Colo, C10
% X % .	Knoxville, Tenn. K6
3% X 5% .	Minnequa, Colo. C10
% X % .	Minnequa, Colo. C10
3% x 34-6	Atlanta A11
% x 48-1 % x % .	Knoxville, Tenn. K6
% x % .	Minnequa, Colo. C10
% X %-1	Milton, Pa. B6
% x 18-2	7
% x 1	Minnequa, Colo. C10
% x 1	Seattle N14
% X 1 % X 1 1/6	Knoxville, Tenn. K6
% x 1%	Minnequa, Colo. C10
% X 1 1/8	Minnequa, Colo. Cit. Portland, Oreg. Od. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Tonawanda, N. V. Biz. Fontana, Calif. Ki. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Portland, Oreg. Od. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Minnequa, Colo. Cit. Portland, Oreg. Od. Fontana, Calif. Ki. Minnequa, Colo. Cit. Portland, Oreg. Od. So. Chicago, Ill. R2 So. Chicago, Ill. R2 Minnequa, Colo. Cit. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Minnequa, Colo. Cit. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. V. Biz. Knoxville, Tenn. Ke Minnequa, Colo. Cit. Seattle N14 Tonawanda, N. W. Biz.
% x 1 1/4	Minnequa, Colo. C10
% X 1 1/4	Tonawanda.N.Y. B12
% x 1%	Knoxville, Tenn. K6
% X 1%	Tonawanda. N.Y. B12
% x 1 1/2	Fontana, Calif. K1
% x 1½ % x 1½ % x 1½	Minneaua Colo, C10
% x 1½	Minnequa,Colo. C10 Portland,Oreg. O4 Seattle N14
% x 1 ½ . % x 1 ½ .	Tonawanda N.Y. B12
% x 1 ½ % x 1 % % x 1 %	Seattle N14Tonawanda,N.Y. B12Knoxville,Tenn. K6Minnequa,Colo. C10
% x 1 ½ % x 1 % % x 1 % % x 1 %	Minnequa, Colo. C10
% x 1% % x 1%	Portland,Oreg. 04 Fontana,Calif. K1 Knoxville,Tenn. K6
% x 1%	Knoxville, Tenn. K6 Minnequa, Colo. C10
% x 1% % x 1% % x 1%	Portland,Oreg. O4
% x 1% .	Seattle N14
% x 1%, % x 1%,-2	Fontana, Calif. K1
% x 2	Tonawanda, N.Y. B12Fontana, Calif. K1Knoxville, Tenn. K6Minnequa, Colo. C10
% x 2 % x 2	
g x z	
	Tonawanda, N.Y. B12
6 x 2 1/4	Knoxville, Tenn. K6
% x 21/4 .	
% x 2¼	Portland.Oreg. 04Seattle N14Tonawanda, N.Y. B12Knoxville, Tenn. K6
% x 2½ .	Tonawanda N.Y. B12
6 x 2 ½	

HOT-ROLLED BARS (Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

| Flats

CONTINUED FROM PRECEDING PAGE

Sizes Produced	Sizes Produced	Sizes Produced	Sizes Produced
(inches) Mill Point, Producer % x 2½Minnequa, Colo. C10 % x 2½Portland, Oreg. 04	(inches) Mill Point, Producer 78 x 5½Portland, Oreg. 04 78 x 6Minnequa, Colo. C10	(inches) Mill Point, Producer 18-31 x 27-8	(inches) Mill Point, Producer 4 x 1 %-6
% x 2½	3-1 x 14 SouthChicago.III. R2	$\frac{1}{16}$ \times $\frac{1}{16}$ \times $\frac{1}{16}$ \times $\frac{1}{16}$ \times Cleveland R2	% x 1½Knoxville, Tenn. K6% x 1½Minnequa, Colo. C10% x 1½Portland, Oreg. O4
% X 2% Minnequa, Colo, Clo	16 - 2½ x 18 - 6 Lackawanna, N.Y. B2 18 - 2½ x 18 - 6 Lackawanna, N.Y. B2 18 - 2½ x 1½ - 3½ 4 Buffalo R2 18 - 3½ - 6 Buffalo R2 18 - 2½ x ½ Knoxville, Tenn. K6	% x 11-111	% x 1½
% x 2% Tonawanda, N. Y. B12	½ X %-1%	% x %	34 x 15
% x 3Knoxville, Tenn. K6 % x 3Minnequa, Colo. C10 % x 3Portland, Oreg. O4	½ x ¾	% x 1Minnequa,Colo. C10 % x 1Seattle N14	% x 1%Minnequa, Colo. C10 % x 1%Portland, Oreg. O4
% x 3	1/2 x %SouthChicago,Ill. R2	% x 1-2% Buffalo R2 % x 1-6 Atlanta A11 % x 1½ Knoxville, Tenn. K6	¾ x 1¾
% x 3 ¹ / ₄ Knoxville, Tenn. K6	½ x 1Minnequa, Colo. C10	% x 14Knoxville, Tenn. K6 % x 14Minnequa, Colo. C10	% x 2Portland, Oreg. O4 % x 2Seattle N14
% x 3 ½	½ x 1 1 - 2 ½	% x 1¼	% x 2-2½
% x 3½Minnequa, Colo. C10 % x 3½Portland.Oreg. O4	72 x 1 1/8 Minnequa, Colo. C10 1/2 x 1 1/8 Minnequa, Colo. C10 1/2 x 1 1/8 Milton, Pa. B6 1/2 x 1 1/4 Knoxville, Tenn. K6 1/2 x 1 1/4 Minnequa, Colo. C10	% x 1½Knoxville, Tenn. K6 % x 1½Minnequa, Colo. C10	¾ x 2 ¼ Portland, Oreg. O4 ¾ x 2 ¼ Seattle N14 ¾ x 2 ½ Knoxville, Tenn. K6
% x 3½	½ x 1½ Minnequa, Colo. C10 ½ x 1½ Seattle N14 ½ x 1¾ Knoxville, Tenn. K6	% x 1½Seattle N14 % x 1½Tonawanda, N.Y. B12	% x 2½Minnequa,Colo. C10 % x 2½Portland,Oreg. O4
% x 3%Tonawanda, N.Y. B12	% x 1% Minnequa, Colo. Cio	% x 1%Knoxville, Tenn. K6 % x 1%Fontana, Calif. K1 % x 1%Knoxville, Tenn. K6	¾ x 2 ½
% x 4	1/2 x 1 1/2	5% x 1%Minnequa, Colo. C10 5% x 1%Portland, Oreg. O4	% x 2%Portland,Oreg. O4 % x 3Knoxville,Tenn. K6
3/2 x 4	½ x 1½	% x 1%	% x 3 Minnequa, Colo. C10 % x 3 Portland, Oreg. O4 % x 3 Seattle N14 % x 3-6 Fontana, Calif. K1
% x 4½ Minnequa, Colo. C10	72 1 72 1 72 Alton, Ill. L1 ½ x 1 1 72 Knoxville, Tenn. K6 ½ x 1 78 Minnequa, Colo. C10	5% x 2Knoxville, Tenn. K6 5% x 2Minnequa, Colo. C10	¾ x 3-6 Fontana, Calif. K1 ¾ x 3 ¼ Knoxville, Tenn. K6 ¾ x 3 ¼ Minnequa, Colo. C10
% x 4½-5Fontana, Calif. K1 % x 5Knoxville, Tenn. K6 % x 5Minnequa, Colo. C10	½ x 1%Portland, Oreg. 04 ½ x 1%Fontana, Calif. K1 ¼ x 1%Knoxville, Tenn. K6	% x 2Portland,Oreg. 04 % x 2Seattle N14 % x 2Tonawanda,N.Y. B12	34 x 3 34Portland, Oreg. 04 34 x 3 34Fontana, Calif. K1
% x 5Portland, Oreg. 04 % x 5 ½Minnequa, Colo. C10	1/2 x 1%Minnequa, Colo. Clu 1/4 x 1%Portland, Oreg. O4	% x 2-2½Fontana, Calif. K1 % x 2½-6Alton, Ill. L1 % x 2¼Knoxville, Tenn. K6	% x 3½Knoxville, Tenn. K6 % x 3½Minnequa, Colo. C10 % x 3½Portland, Oreg. O4
% x 5 ½Portland, Oreg. O4 % x 6Fontana, Calif. K1 % x 6Minnequa, Colo. C10	½ x 1¾ Seattle N14 ½ x 1¾ Tonawanda,N.Y.B12 ½ x 1¾ -2¾ Fontana,Calif. K1	% x 2½Minnequa, Colo. C10 % x 2½Portland.Oreg. O4	¾ x 3½
% x 6Portland, Oreg. 04 %-1 x 1%-1 & So. Chicago, Ill. R2 %-1 x 4 % Torrance, Calif. C11	1/2 x 2 Knoxville, Tenn. K6 1/2 x 2 Minnequa, Colo. C10 1/2 x 2 Portland, Oreg. O4	% x 2 ¼ Seattle N14 % x 2 ¼ Tonawanda, N.Y. B12 % x 2 ½ Knoxville, Tenn. K6	34 x 4
%-1 x 6 Torrance, Calif. C11	½ X 2Seattle N14	% x 2½ Minnequa, Colo. C10 % x 2½ Portland, Oreg. O4 % x 2½ Seattle N14	¾ x 4
$\%-1 \times 7\%-8$ Cleveland R2 $\frac{7}{6} \times \%$ Knoxville, Tenn. K6 $\frac{7}{6} \times \%$ Knoxville, Tenn. K6	½ x 2-2½Fontana, Cant. K1 ½ x 2¼Knoxville, Tenn. K6 ¼ x 2¼Minnequa, Colo. C10	% x 2½ Tonawanda, N.Y. B12 % x 2¾ Knoxville, Tenn. K6	% x 4½Minnequa, Colo. C10 % x 4½Portland, Oreg. O4
16 x ¾	½ x 2¼ Portland, Oreg. 04 ½ x 2¼ Seattle N14 ½ x 2¼ Tonawanda, N.Y. B12	% x 2%Minnequa,Colo. C10 % x 2%Portland,Oreg. O4 % x 3Fontana,Calif. K1	¾ x 4 ½-5 Fontana, Calif. K1 ¾ x 5 Knoxville, Tenn. K6 ¾ x 5 Minnequa, Colo. C10
J x % Minnegua, Colo. C10	1/2 X 2½ Knoxvine, Tehn. Ko	% x 3Knoxville, Tenn. K6	% x 5
76×1	72 x 2 72 Introduction of the control of the contro	5% x 3Portland, Oreg. O4 5% x 3Seattle N14 5% x 3-6Fontana, Calif. K1	% x 5½Portland, Oreg. 04 % x 6Knoxville, Tenn. K6
$\frac{7}{4}$ x 1,1-34Buffalo R2 $\frac{7}{4}$ x 1 $\frac{1}{4}$ Knoxville.Tenn. K6	Portland Oras O4	% x 3 %Knoxville, Tenn. K6 % x 3 %Minnequa, Colo. C10 % x 3 %Portland, Oreg. O4	$\frac{3}{4} \times 6$ Minnequa, Colo. C10 $\frac{3}{4} \times 6$ Portland, Oreg. O4 $\frac{3}{6} \times \frac{3}{6} \times \frac{3}{6} \times \frac{1}{3} \frac{1}{2}$ Cleveland R2
78 X 1 1/8 Knoxville, Tenn. K6	1/2 X 23/4	% x 3½Fontana.Calif. K1 % x 3½Knoxville,Tenn. K6	は x 2g-1 法
$76 \times 1\%$	1/2 x 2 3/4 Tonawanda, N.Y. B12 1/2 x 2 1/8 - 8 Buffalo R2 1/4 x 2 1/8 - 8 Fontana, Calif. K1 1/2 x 3 Fontana, Calif. K1 1/2 x 3 Minnequa, Colo. C10 1/2 x 3 Portland, Oreg. O4 1/2 x 3 Scattle N14 1/2 x 3 Fontana, Calif. K1 1/2 x 3 3/4 Knoxville, Tenn. K6 1/3 x 3 3/4 Minnequa, Colo. C10 1/4 x 3 3/4 Portland, Oreg. O4 1/4 x 3/4 Portland, O7 1/4 x 3/4 P	% x 3 ½ Minnequa, Colo. C10 % x 3 ½ Portland, Oreg. O4 % x 3 ½ Seattle N14	% x 1Knoxville, Tenn. K6
$76 \times 1\frac{1}{2} \times 1\frac{1}{2} \dots$ Minnequa, Colo. C10	1/2 x 3Minnequa, Colo. C10 1/2 x 3Portland, Oreg. O4 1/2 x 3Portland, Oreg. Neattle N14	% x 3%Knoxville, Tenn. K6 % x 4Fontana. Calif. K1	% x 1%Knoxville, Tenn. K6
$78 \times 1\%$	½ x 3-6Fontana, Calif. K1 ½ x 3¼Knoxville, Tenn. K6	% x 4 Knoxville, Tenn. K6 % x 4 Minnequa, Colo. C10 % x 4 Portland, Oreg. O4 % x 4 Seattle N14 % x 4 ½ Knoxville, Tenn. K6 % x 4 ½ Knoxville, Colo. C10	% x 1½ Knoxville, Tenn. K6 % x 1½ Minnequa, Colo. C10 % x 1½ Seattle N14
76 x 1% Knoxville, Tenn. K6 76 x 1% Minnequa, Colo. C10	1/2 x 3 1/4	5% x 4	% x 1½-6
16 X 2Knoxville, Tenn. Ko	72 4 3 74 Fontana, Calif. K1 1/2 x 3 7/2 Knoxville, Tenn. K6 1/2 x 3 7/2 Minnequa, Colo. C10 1/2 x 3 7/2 Portland, Oreg. O4	% x 4½Portland, Oreg. 04	% x 1%Minnequa, Colo. C10 % x 1%Seattle N14
15	1/2 x 3 1/2	% x 5 Knoxville, Tenn. K6 % x 5 Minnequa, Colo. C10 % x 5 Portland, Oreg. O4	% x 2
176 x 21/4 Portland, Oreg. O4 176 x 21/2 Knoxville, Tenn. K6 177 x 21/4 Minnegua Colo. C10	1/2 x 4 Fontana, Calif. K1 1/2 x 4 Knoxville, Tenn. K6 1/2 x 4 Minnequa, Colo. C10	% x 5 ½	% x 2 Seattle N14 % x 2-2½ Fontana, Calif. K1 % x 2½ Knoxville, Tenn. K6 % x 2½ Minnequa, Colo. C10
78 x 2½Portland, Oreg. O4 78 x 2¾Knoxville, Tenn. K6	½ x 4 Minnequa, Colo. C10 ½ x 4 Portland, Oreg. O4 ½ x 4 Seattle N14 ½ x 4½ Knoxville, Tenn. K6 ½ x 4½ Minnequa, Colo. C10 ½ x 4½ Portland, oreg. O4 ½ x 4½ Fontana, Calif. K1 ½ x 5 Knoxville, Tenn. K6 ¼ x 5 Minnequa, Colo. C10	% x 6Portland, Oreg. O4	% x 24Portland, Oreg. 04
16 x 24Minnequa, Colo. C10 16 x 24Portland, Oreg. 04 17 x 3Knoxville, Tenn. K6	1/2 x 4 1/2 Minnequa, Colo. C10 1/2 x 4 1/2 Portland, Oreg. O4 1/2 x 4 1/2 Pontana Calif K1	\$\frac{3}{2} \times \frac{3}{2} - \frac{1}{16} \\ \frac{1}{2} \times \frac{1}{2} - \frac{1}{2} \\	% x 2 ½ Seattle N14 % x 2 ½ Knoxville, Tenn. K6 % x 2 ½ Minnequa, Colo. C10 % x 2 ½ Portland, Oreg. O4 % x 2 ½ Seattle N14 % x 2 ½ Seattle N14
To x 3Minnequa, Colo. C10 To x 3Portland, Oreg. O4 To x 31/2 Knoxyille Tenn. K6	1/2 x 5	1 x 1-1%	
16 x 3 ½ -6Buffalo R2 ½ x 3 ½Knoxville, Tenn. K6 ¼ x 3 ½Minnequa, Colo. C10 ½ x 3 ½Depting Oreg. 04		16 -1 7 x 1 1 Cleveland R2 2 x 35 -1 16 Cleveland R2	% x 2%Minnequa, Colo. C10 % x 2%Portland, Oreg. O4
16 x 3½Minnequa, Colo. C10 16 x 3½Portland, Oreg. O4 17 x 3¾Knoxville, Tenn. K6	1/4 x 5 1/2 Minnequa, Colo. Clo 1/4 x 5 1/2 Portland, Oreg. O 4 1/2 x 6 Fontana, Calif. K1 1/4 x 6 Minnequa, Colo. Clo 1/4 x 6 Portland, Oreg. O 4 1/4 11 x 2 1/2 Cleveland R2 1/4 1/4 x 2 1/4 Cleveland R2	56-2% x 1%-3% Pittsburgh J5	% x 3Knoxville, Tenn. K6 % x 3Minnequa, Colo. C10 % x 3Portland. Oreg. O4
76 x 4 Knoxville, Tenn. K6 76 x 4 Minnequa, Colo. C10 7 x 4 Portland Oreg. C4	14-118 x 21/2 Cleveland R2 14-2 x 21/4-21/2 Cleveland R2	% x %Knoxville, Tenn. F6 % x %So.Chicago, Ill. R2	% x 3
Trace X 3 ½ Minnequa, Colo. C10 15 X 3 ½ Portland, Oreg. O4 15 X 3 ½ Knoxville, Tenn. K6 15 X 4 Knoxville, Tenn. K6 75 X 4 Minnequa, Colo. C10 76 X 4 ½ Knoxville, Tenn. K6 16 X 4 ½ Minnequa, Colo. C10 15 X 4 ½ Minnequa, Colo. C10 16 X 4 ½ Portland, Oreg. O4 17 X 5 Knoxville, Tenn. K6	72-148 x 2% 2% Cleveland R2 72-2 x 2% -2% Cleveland R2 72-2 x 2% 2 Cleveland R2 72-2 x 5% -6 Ecorse, Mich. G5 72 x 11-2% Buffalo R2	3/4 x 1 Knoxville Tenn. K6 3/4 x 1 Minnequa, Colo. C10 3/4 x 1-1½ Buffalo R2	% x 3½Knoxville, Tenn. K6 % x 3½Minnequa, Colo. C10
X x 5 Minnegua, Colo, C10	16 X %-148	4x 1 Buffalo R2 4x 1-1½ Buffalo R2 4x 1½ Knoxville, Tenn. K6 4x 1½ Knoxville, Tenn. K6 4x 1½ Minnequa, Colo. C10 4x 1½ Knoxville, Tenn. K6	% x 3½Portland, Oreg. 04 % x 3½Seattle N14 % x 3¾Knoxville, Tenn. K6
16 x 5Portland, Oreg. O4 78 x 5½Minnequa, Colo. C10	76 x 1-34Buffalo R2	% x 1%Knoxville, Tenn. K6	% x 4Fontana, Calif. K1

(Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)



Flats-

CONTINUED FROM PRECEDING PAGE

	Sizes	Sizes	Sizes
3 x 4	(inches) Mill Point, Producer		(inches) Mill Point, Producer
No.	% x 4Knoxville, Tenn. K6	1¼ x 2½Knoxville, Tenn. K6	3-31/2 Tacony, Philadelphia D4
	% x 4Portland, Oreg. O4	1¼ x 2¾Knoxville, Tenn. K6	$\frac{76}{4}$ - $\frac{5}{2}$
	% x 4	1½ x 3Knoxville, Tenn. K6	1/4-15/8Atlanta A11
	% x 4½Minnequa, Colo. C10	1½ x 3-6 Fontana, Calif. K1	½-2
	$\% \times 4\% = 5$ Fontana Calif. K1	1¼ x 3½Knoxville, Tenn. K6	14-4
3	% x 5Knoxville, Tenn. K6	1% x 3½Minnequa, Colo. Cio	23-3½Buffalo R2
3x 5 to Minnequa, Colo, City 15 x 2 to Minnequa, Colo, City 3x 5 to Minnequa, Colo, Cit	% x 5Portland, Oreg. O4	1½ x 4 Knoxville, Tenn. K6	%-1%Williamsport,Pa. S19
2	% x 5½Knoxville, Tenn. K6 % x 5½Minnequa, Colo. C10	1¼ x 4½Knoxville, Tenn. K6	84_9 Alton III I.1
1 x 1 4	% x 5½Portland, Oreg. O4	$1\frac{1}{4}$ x $4\frac{1}{2}$ Minnequa, Colo. C10 $1\frac{1}{4}$ x 5 Knoxville, Tenn. K6	%-2LosAngeles B3
1 x 1 4	% x 6Minnequa, Colo. C10	1½ x 5 Minnequa, Colo. C10	%-2 Madison, Ill. L1
1 x 1 s.	% x 6Portland, Oreg. O4 1 x 1 1/4Knoxville, Tenn. K6	1½ x 5½Minnequa, Colo. C10	%-2Seattle N14
1	1 x 1 %Knoxville, Tenn. K6	1 % X 6Knoxville, Tenn. K6	
1	1 x 1½ Minnequa, Colo. C10	1% x 2–8Buffalo R2	%-3½SanFrancisco B3
1	1 x 1½	1% x 3Minnequa, Colo. C10	%-3%Seattle B3
1	1 x 1½-6 Atlanta A11	1% x 3½ Minnequa, Colo. C10 1% x 4 Minnequa, Colo. C10	%_41/4 Lookawanna N V R2
1	1 x 1 % Knoxville, Tenn, K6	1% x 4½ Minnequa, Colo. C10	%-4½Ecorse, Mich. G5
1 x 2	1 x 1 % Seattle N14	178 x 572 Millinequa, Colo. C10	%-64
1 x 2 y	1 x 2Knoxville, Tenn. K6	$1\% \times 6$ Minnequa, Colo. C10 $1\% \times 2$ Knoxville, Tenn. K6	/8-0 · · · · · · · · · · · · · · · · · · ·
1 x 2 2	1 x 2Portland, Oreg. O4	1½ x 2 Minnequa, Colo. C10	%-9½SouthChicago.Ill. R2
1 x 2 to Minnequa, Colo. Clo 10 to x 2 to Minnequa, Colo. Clo 10 to x 2 to Minnequa, Colo. Clo 10 to x 2 to Minnequa, Colo. Clo 1 to x 2 to Minnequa, Colo. Clo 1 to x 2 to Minnequa, Colo. Clo 1 to x 3 to Minnequa, Colo. Clo 2 to 4 to x 3 to Minnequa, Colo. Clo 2 to 4 to x 3 to Minnequa, Colo. Clo 1 to x 4 to Mi	1 x 2 2½Fontana, Calif. K1	1½ x 2% –8Buffalo R2	78-178AlabamaCity, Ala. R2
1	1 x 2½ Knoxville, Tenn. K6	$1\frac{1}{2} \times 2\frac{1}{2}$ Knoxville, Tenn. K6	31-4Niles, Calif. P1
1 x 2 ½	1 x 2 4	1½ x 2¾Knoxville, Tenn. K6	$\frac{1}{\sqrt{2}}$
1 x 2 ½	$1 \times 2\frac{1}{4}$	1½ x 3Minnequa, Colo. C10	½-3Portland.Oreg. O4
1 x 2	1 x 2½ Minnequa, Colo. C10	1½ x 3–6Fontana, Calif. Kl	½-4½Economy,Pa. B14
1 x 2 % Minnequa, Colo. C10	1 x 2 1/2	1 1 x 3 1 Knoxville, Tenn. K6	
1 x 2 s	1 x 2 % Minnegua, Colo, C10	1½ x 3¾Knoxville, Tenn. K6	10-4½ Detroit R7
1 x 3	1 x 2 34Portland.Oreg. O4	1½ x 4Knoxville, Tenn. K6	2-6Warren,O. C17
1	1 x 3Minnequa, Colo. C10	1½ x 4½ Knoxville, Tenn. K6	Parties A.
1	1 x 3Seattle N14	1½ x 5 Knoxville, Tenn. K6	Heyggons
1	1 x 3-6	1½ x 5 Minnequa, Colo. C10 1½ x 5½ Knoxville, Tenn. K6	Hexagons
1	1 x 3 ½ Knoxville, Tenn, K6	1½ x 5½ Minnequa, Colo. C10	14-15 Tacony, Philadelphia D4
1	1 x 3½Portland, Oreg. O4	1½ x 6 Minnequa, Colo. C10	%-2- Johnstown, Pa. 32
1 x 4	1 x 3½Knoxville, Tenn. K6	1% x 2 % -8 Minnequa, Colo. C10	%-2%Ecorse, Mich. G5
1 x 4	1 x 4	1% x 4 Minnequa, Colo. C10	%-3½Youngstown U5
1 x 4 ½ Minnequa, Colo. Clo 1 ½ x 2½ K.noxville, Tenn. K6 1 x 4 ½ Fortland, Oreg. O4 1 ½ x 2½ Minnequa, Colo. Clo 1 ½ x 2½ Minnequa, Colo. Clo 1 ½ x 2½ K.noxville, Tenn. K6 1 x 5 Minnequa, Colo. Clo 1 ½ x 3 K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3 K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ K.noxville, Tenn. K6 1 ½ x 1½ K.noxville, Tenn. K6 1 ½ x 2½ K.noxville, Tenn. K6 1 ½ x 5 K.noxville, Ten	1 x 4Minnequa, Colo. C10	1% x 5 Minnequa, Colo. C10	15-116Pittsburgh J5
1 x 4 ½ Minnequa, Colo. Clo 1 ½ x 2½ K.noxville, Tenn. K6 1 x 4 ½ Fortland, Oreg. O4 1 ½ x 2½ Minnequa, Colo. Clo 1 ½ x 2½ Minnequa, Colo. Clo 1 ½ x 2½ K.noxville, Tenn. K6 1 x 5 Minnequa, Colo. Clo 1 ½ x 3 K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3 K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ Minnequa, Colo. Clo 1 ½ x 3½ K.noxville, Tenn. K6 1 x 5 ½ K.noxville, Tenn. K6 1 ½ x 1½ K.noxville, Tenn. K6 1 ½ x 2½ K.noxville, Tenn. K6 1 ½ x 5 K.noxville, Ten	1 x 4	1% x 6Minnequa, Colo. C10	½-%
1	1 x 4 ½ Knoxville, Tenn. K6	1% x 2Knoxville, Tenn. K6	
x 5	1 x 4 ½Portland, Oreg. O4	1% X 2%Knoxville.Tenn. Kb	5%-1½Ft.Worth,Tex. T4
1	1 x 5	134 x 234 Knoxville Tenn. K6	%-1%Pittsburg,Calif. Cli
1 x 5 ½	1 x 5Portland, Oreg. O4	1% x 2% -8	1 % onlyKnoxville, Tenn. K6
1 x 5	$1 \times 5 \frac{1}{2}$	1% x 3 Minnequa, Colo, C10	
1 x 6	1 x 5%Portland.Oreg. O4		Half Ovals
1% x 2½ Knoxville, Tenn, K6 1½ x 5½ Knoxville, Tenn, K6 1½ x 5½ Knoxville, Tenn, K6 1½ x 5½ Minnequa, Colo, Cl0 1½ x 5½ Minnequa, Colo, Cl0 1½ x 5½ Minnequa, Colo, Cl0 1½ x 6 Knoxville, Tenn, K6 1½ x 6 Nxville, Tenn, K6 1½ x 3 Nxville, Tenn, K6 1½ x 2½ Nxville, Tenn, K6 1½ x 1½ Nxville, T	1 x 6	1% x 3%Knoxville, Tenn. K6	
1% x 2½ Knoxville, Tenn. K6 1½ x 5½ Knoxville, Tenn. K6 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Minnequa, Colo. C10 1½ x 3 Atlanta A11 1½ x 3 Knoxville, Tenn. K6 1½ x 2½ Agry, Ind. U5 1½ x 3 Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 3½ Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 4 1½ x 3½ Atlanta A11 1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Minnequa, Colo. C10 1½ x 2½ Atlanta A11 1½ x ½ Atlanta A11 1½ x ½ Youngstown U5 1½ x ½	1% x 1% Knoxville Tenn. K6	1% x 4Knoxville, Tenn. K6	½x½ to 4x¾Johnstown,Pa. B2
1% x 2½ Knoxville, Tenn. K6 1½ x 5½ Knoxville, Tenn. K6 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Minnequa, Colo. C10 1½ x 3 Atlanta A11 1½ x 3 Knoxville, Tenn. K6 1½ x 2½ Agry, Ind. U5 1½ x 3 Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 3½ Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 4 1½ x 3½ Atlanta A11 1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Minnequa, Colo. C10 1½ x 2½ Atlanta A11 1½ x ½ Atlanta A11 1½ x ½ Youngstown U5 1½ x ½	1 % x 1 % Knoxville, Tenn. K6	134 x 41/2Knoxville, Tenn. K6	%x% thru 1%x%Alton,III. L1
1% x 2½ Knoxville, Tenn. K6 1½ x 5½ Knoxville, Tenn. K6 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 5½ Minnequa, Colo. C10 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Knoxville, Tenn. K6 1½ x 6 Minnequa, Colo. C10 1½ x 3 Atlanta A11 1½ x 3 Knoxville, Tenn. K6 1½ x 2½ Agry, Ind. U5 1½ x 3 Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 3½ Minnequa, Colo. C10 1½ x 2½ Sall, Youngstown U5 1½ x 4 1½ x 3½ Atlanta A11 1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Minnequa, Colo. C10 1½ x 2½ Atlanta A11 1½ x ½ Atlanta A11 1½ x ½ Youngstown U5 1½ x ½	1½ x 2Knoxville.Tenn. K6	1 % x 5 Knoxville, Tenn. K6	% X 3
1½ x 2½ Minnequa, Colo, Cl0 1½ x 6 Minnequa, Colo, Cl0 1½ x 4 Attanta All 1½ x 3 Knoxville, Tenn. K6 1½ 2½ 2½ 3½ 3½ 4 Cary, Ind. U5 1x½ 4 Youngstown U5 1½ x 3 Minnequa, Colo, Cl0 1½ x 2¾ -8 84 Buffalo R2 1½ x ½ 4 Atlanta All 1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Knoxville, Tenn. K6 1½ x 3½ Atlanta All 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Atlanta All 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 4 Minnequa, Colo, Cl0 2 x 3 Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 4½ Minnequa, Colo, Cl0 2 x 3½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 5½ Minnequa, Colo, Cl0 2 x 3½ Knoxville, Tenn. K6 1½ x ½ Youngstown U5 1½ x 5½ Minnequa, Colo, Cl0	116 x 214 Knoxville Tenn K6	1% x 5%Knoxville, Tenn. K6	% x 1 6
1½ x 2½ Minnequa, Colo, Cl0 1½ x 6 Minnequa, Colo, Cl0 1½ x 4 Attanta All 1½ x 3 Knoxville, Tenn. K6 1½ 2½ 2½ 3½ 3½ 4 Cary, Ind. U5 1x½ 4 Youngstown U5 1½ x 3 Minnequa, Colo, Cl0 1½ x 2¾ -8 84 Buffalo R2 1½ x ½ 4 Atlanta All 1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Knoxville, Tenn. K6 1½ x 3½ Atlanta All 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Atlanta All 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 3½ Minnequa, Colo, Cl0 2 x 2½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 4 Minnequa, Colo, Cl0 2 x 3 Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 4½ Minnequa, Colo, Cl0 2 x 3½ Minnequa, Colo, Cl0 1½ x ½ Youngstown U5 1½ x 5½ Minnequa, Colo, Cl0 2 x 3½ Knoxville, Tenn. K6 1½ x ½ Youngstown U5 1½ x 5½ Minnequa, Colo, Cl0	1 × 2 ½ Minnequa Colo. C10	1% x 5% Minnequa, Colo. C10	%x¼Atlanta A11
1	1 % x 2 ½ Minnequa, Colo. C10	1% x 6 Minnequa, Colo. C10	1x¼Atlanta A11
1	1 % x 3Knoxville, Tenn. K6	$\frac{149}{49} = 263 \times 2\frac{1}{4} = 331 \times 331 $	1x 1/2 Youngstown U5
1½ x 3½ Knoxville, Tenn. K6 2 x 2½ Minnequa, Colo. C10 1½ x ½ Atlanta Al1 1½ x 3¾ Minnequa, Colo. C10 2 x 2½ Knoxville, Tenn. K6 1½ x ½ Gary, Ind. U5 1½ x 4 Knoxville, Tenn. K6 2 x 3½ Knoxville, Tenn. K6 1½ x ½ Youngstown U5 1½ x 4 ½ Minnequa, Colo. C10 2 x 3½ Buffalo R2 1½ x ½ Youngstown U5 1½ x 4½ Minnequa, Colo. C10 2 x 3½ Knoxville, Tenn. K6 1½ x ½ Youngstown U5 1½ x 5 Minnequa, Colo. C10 2 x 3½ Knoxville, Tenn. K6 1½ x ½ SanFrancisco B3 1½ x 5½ Minnequa, Colo. C10 2 x 3½ Minnequa, Colo. C10 1½ x ½ SanFrancisco B3 1½ x 5½ Minnequa, Colo. C10 2 x 3½ Minnequa, Colo. C10 1½ x ½ Youngstown U5 1½ x 5½ Minnequa, Colo. C10 2 x 4 Knoxville, Tenn. K6 1½ x ½ Youngstown U5 1½ x 6 Knoxville, Tenn. K6 2 x 4 Minnequa, Colo. C10 1½ x ½ Minnequa, Colo. C10 1½ x 1½ Knoxville, Tenn. K6	$1\% \times 3$ Minnequa.Colo. C10	1 % x 2 4 -8 Buffalo R2	1 % x ½
1/8 x 4 ½ Minnequa, Colo. C10 2 x 3 ½ Knoxville, Tenn. K6 1/2 x ½ Minnequa, Colo. C10 1/2 x ½ Minnequa, Colo.	1% x 3½Knoxville, Tenn. K6	$2 \times 2\frac{1}{2}$ Knoxville, Tenn. K6 $2 \times 2\frac{1}{2}$ Minnequa, Colo. C10	1½x 5
1/8 x 4 ½ Minnequa, Colo. C10 2 x 3 ½ Knoxville, Tenn. K6 1/2 x ½ Minnequa, Colo. C10 1/2 x ½ Minnequa, Colo.	1½ x 3½Knoxville, Tenn. K6	2 x 2¾Knoxville, Tenn. K6	14x 5
1/8 x 4 ½ Minnequa, Colo. C10 2 x 3 ½ Knoxville, Tenn. K6 1/2 x ½ Minnequa, Colo. C10 1/2 x ½ Minnequa, Colo.	1 × 4 Knoxville, Tenn. K6	2 x 3Minnequa, Colo. C10	1%x¼Youngstown U5 1½x⅓Gary,Ind. U5
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1½ x 4½Knoxville, Tenn. K6	2 x 3 ½ –8Buffalo R2	11/2×18 Atlanta A11
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 1/8 x 5 Knoxville, Tenn. K6	2 x 3 1/2 Knoxville, Tenn. K6	1½x%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1% x 5 Minnequa, Colo. C10 1% x 5½ Knoxville, Tenn. K6	2 x 3 ½ Minnequa, Colo, C 10 2 x 3 ¾ Knoxville, Tenn. K6	1½x%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1½ x 5½ Minnequa, Colo. C10	2 x 4Knoxville, Tenn. K6	1% x * Indiana Harbor, Ind. 1-2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 1/8 x 6Minnequa, Colo. C10	2 x 4 ½Knoxville, Tenn. K6	18/ v 3/ Voungetown II5
1½ x 2-8 Buffalo R2 2 x 6 Knoxville, Tenn. K6 2x½ IndianaHarbor, Ind. I-2 1½ x 2½ Knoxville, Tenn. K6 2 x ½ Youngstown U5	11/4 x 11/2 Knoxville, Tenn. K6	2 x 4½ Minnequa. Colo. C10 2 x 5 Knoxyille Tenn Ke	$1\frac{3}{4}\frac{x}{16}\frac{7}{16}$
1½ x 2-8 Buffalo R2 2 x 6 Knoxville, Tenn. K6 2x½ IndianaHarbor, Ind. I-2 1½ x 2½ Knoxville, Tenn. K6 2 x ½ Youngstown U5	1¼ x 1¾Knoxville, Tenn. K6	2 x 5Minnequa, Colo. C10	13/4 x 7/8 Youngstown U5
1½ x 2½ Knoxville, Tenn. K6 2 x 6 Minnegua. Colo. C10 2x½ Youngstown U5	1¼ x 2 Minnequa, Colo. C10	2 x 5 ½ Knoxville, Tenn. K6 2 x 5 ½ Minnequa, Colo, C10	2x½Atlanta A11
1¼ x 2¼ Minnequa, Colo. C10 ' 2½ x 3-5 Minnequa, Colo. C10 2½x% Youngstown U5	1¼ x 2–8Buffalo R2 1¼ x 2¼Knoxville, Tenn. K6	2 x 6Minnegua, Colo. C10	$2x\frac{1}{2}$ IndianaHarbor, Ind. I-2 $2x\frac{1}{2}$ Youngstown U5
	1¼ x 2¼Minnequa, Colo. C10	2½ x 3-5Minnequa, Colo. C10	2½x%Youngstown U5



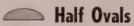
Rounds

Sizes	
M.nMax.	
(inches)	Mill Point, Producer
	y, Philadelphia D4
3-3½Tacon	
	innequa, Colo. C10
1/4 - 1/2	.Sterling, Ill. N15
1/4-1 5/8	Atlanta A11
1/4 -2	Ft. Worth, Tex. 14
	ansasCity, Mo. S5
1/4-4	ansascity, ato. co
14-4	Houston S5
$\frac{23}{64}$ $\frac{3}{16}$ Indian	naHarbor, Ind. 1-2
64 16 23 3 ½	Buffalo R2
34 114 37711	ismenort Pa S10
%-1½Will %-1½Ton	namsport,1 a, 515
%-1%10II	awanua,N.I. D12
	Alton,Ill. L1
	neryville, Calif. J7
	LosAngeles B3
%-2	Madison, Ill. L1
%-2Pit	tsburg, Calif. C11
	Seattle N14
%-3¼	Youngstown U5
78 0 74	. Toungstown OJ
7/8 - 3 7/2	Cleveland R2
%-3½ %-3½ %-3½ %-3½	SanFrancisco B3
%-3½To	rrance, Calif. C11
	Seattle B3
	noxville, Tenn. K6
%-41/8Lacl	kawanna, N.Y. B2
86-41/6	.Ecorse.Mich. G5
	Chicago, Ill. W14
38-614	Gary, Ind. U5
%-8	Duquesne, Pa. U5
%-9½Sou	thChicago,Ill. R2
	Milton,Pa. B6
$\frac{7}{18}$ -2 ½Alak	amaCity, Ala. R2
	Niles, Calif. P1
31-41/2	Pittsburgh J5
6.4 1½−1%	.Lebanon.Pa. B2
	Portland, Oreg. 04
	Fontana, Calif. K1
1/2-41/2	Economy, Pa. B14
17-3%	.Youngstown R2
8-14	Marion O. P11
9 4 17.	Detroit R7 thChicago, Ill. U5
1 ₁₆ -5Sou	thChicago III II5
2–6	Warren O C17
~	arren, o. Cri



Hexagons

14-1%	Tacony, Philadelphia D4
%-1 11	SouthChicago,Ill. R2
%-2+	Johnstown, Pa. 32
%-2½	Ecorse, Mich. G5
%3 ₁ k	Gary, Ind. U5
3/8-3 t/4	Youngstown U5
78-19	IndianaHarbor,Ind. I-2
15-25	Pittsburgh J5
1/2-7/8	
17-21/8	Youngstown R2
2-12	Lackawanna, N.Y. B2
2-2.	Detroit R7
5/8-11/2	Ft. Worth, Tex. T4
3/4-11/4	Pittsburg, Calif. C11
34-134	Minnequa, Colo, C10
1% onl	y Knoxville, Tenn. K6



½ x ½Atlanta A11
1/2 x 1/2 to 4x 3/4 Johnstown.Pa. B2
½x¼ thru 1¼x%Alton,Ill. L1
%x3Atlanta A11
%x 3
%x16Atlanta A11
%x3
% x 3
%x¼Atlanta A11
1x¼Atlanta A11
1x¼
1x 1/4Youngstown U5
1½x¼Atlanta A11
1½x¼Youngstown U5
14x 5
1¼x½
14x,5Youngstown U5
1½x 15
1½x 18Youngstown U5
1½x¾Atlanta A11
1½x%Gary,Ind. U5
1½x¾SanFrancisco B3
1½x%Youngstown U5
1%x 1/2IndianaHarbor,Ind. I-2
1%x%IndianaHarbor,Ind. I-2
1%x%Youngstown U5
1% x 7
1¾ x 7SanFrancisco B3
1%x 7Youngstown U5
2x 3/8Youngstown U5
2x½Atlanta A11
2x½IndianaHarbor,Ind. I-2
2x½Youngstown U5
216 x 56 Vounggtown II5



Squares

(inches)	Mill Point, Produce
3-2	Tacony, Philadelphia D
4-11/4	Atlanta A1Minnequa,Colo. C1KansasCity,Mo. SPittsburg,Calif. C1
5-41/2	Minnequa, Colo, C1
%-1	KansasCity, Mo. S
%-1	Pittsburg, Calif. C1
%-1	Torrance, Calif. C1
	Tonawanda, N.Y. B1
%−1%	Youngstown U
%-1%	LosAngeles B
%-1%	Ft. Worth, Tex. T
%-1%	Seattle N1
%-2	IndianaHarbor,Ind. I-
%-2	Seattle B
	Johnstown,Pa. B
%-21/2	Lackawanna, N.Y. B
	SanFrancisco B
	Knoxville, Tenn. K
%-4	Ecorse, Mich. G
%-416	
	SouthChicago,Ill. R
78-248	Cleveland R
½-±	
1/2-1	
½-L	Portland, Oreg. O
72-472 · · ·	AlabamaCity,Ala. RFontana,Calif. K
72-474	Fontana,Calli. K
9 1 1/	Economy, Pa. B1
1g-174 5/ 91/	Marion,O. P1 Niles,Calif. P
%-3	SouthChicago, Ill. W1
76 - 514	Duquesne,Pa. U
78-072 59 -2 14	Pittsburgh J
	Buffalo R
11/ 00	



ROUND CORNERED

......Youngstown U5

%-3%Johnstown, Pa. B2
%-4¼Ecorse, Mich. G5
½-1Portland, Oreg. 04
The state of the s
10-11/4
%-11/4Williamsport.Pa. S19
%-4
%-3%Lackawanna, N.Y. B2
%-41/2 SouthChicago. Ill. W14
$\frac{59}{64}$ - $2\frac{1}{2}$
1-2Ft. Worth, Tex. T4
1-21/4Seattle B3
a data da
1-6½SouthChicago, Ill. R2
1 1/8 -4Buffalo R2
14-31/2 Tacony, Philadelphia D4
118-21/8 Indiana Harbor, Ind. I-2
1½ onlyAtlanta A11
1½-3Fontana, Calif. K1
1½-under 4Detroit R7
1½-4Niles, Calif. P1
2-6
2½-4Economy,Pa. B14
- A. L. Cohomy, Pa. B14



△ Half Rounds

5-34Atlanta A11
%-%Alton,Ill. L1
%-3Johnstown,Pa. B2
½-1½Knoxville, Tenn. K6
½-3Youngstown U5
%-2SanFrancisco B3



Ovals, Blunt $\frac{1}{2}x_{3\frac{5}{2}}$ to $1\frac{1}{4}x_{16}^{7}$Alton, III. L1

1/2 X 1/4	
1/2 X 1/4	Youngstown U5
%x 18	Atlanta A11
% X 18	Gary,Ind. U5
% X 15	IndianaHarbor,Ind. I-2
% X &	SouthChicago,Ill. W14
% X 5	Youngstown U5
34 X 16	Gary, Ind. U5
34 X 16	IndianaHarbor,Ind. I-2
34 X 16	SouthChicago, Ill. W14
34 X 18	Youngstown 175
34 x 38	SouthChicago,Ill. W14
% X 18	SouthChicago,Ill. W14
% x %	SouthChicago,Ill. W14
% X 7	
% X 7	IndianaHarbor, Ind. I-2
% X 7	SouthChicago, Ill. W14
%×7	Youngstown U5

SHARP OVALS

1/2 X 3	to 14x7	Alton,Ill.	L
		.Johnstown, Pa.	
%x 7		.Johnstown, Pa.	B2

HOT-ROLLED BAR SIZE SHAPES (Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

Angles, Equal Leg (fillet)

Angles, Equal Leg (fillet)								
Sizes	Sizes	Sizes	Sizes					
Produced (inches) Mill Point, Producer	Produced (inches) Mill Point, Producer	(inches) Mill Point, Producer	Produced (inches) Mill Point, Producer					
½x½x½Atlanta A11	1 1/4 x 1 1/4 x 1/8 Gary, Ind. U5	1%x1%x1% .AlabamaCity, Ala. R2	2x2x%					
½x½x½Knoxville, Tenn. K6 ½x½x½Youngstown U5	1¼x1¼x½Ind.Harbor,Ind. I-2 1¼x1¼x½Knoxville,Tenn. K6	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $1\frac{3}{6}$ Aliquippa, Pa. J5 $1\frac{3}{4}$ x $1\frac{3}{4}$ x $1\frac{3}{6}$ Atlanta A11	2x2x%IndianaHarbor,Ind. I-2 2x2x%Knoxville,Tenn. K6					
½ x ½ x	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1%x1%x%Gary,Ind. U5	2x2x % Minnequa, Colo, C10					
to $2\frac{1}{2}x2\frac{1}{2}x$ LosAngeles B3 $\frac{1}{2}x\frac{1}{2}x$	$1\frac{1}{4}\frac{1}{4$	1%x1%x1%Ind.Harbor,Ind. I-2 1%x1%x1%Knoxville,Tenn. K6	2x2x %Portland,Oreg. O4 2x2x %Seattle N14					
to 2½x2½x SanFrancisco B3 %x%x½Youngstown U5	1¼x1½x½	$1\% \times 1\% \times \%$ Minnequa, Colo. C10 $1\% \times 1\% \times \%$. Tonawanda, N.Y. B12	2x2x % Tonawanda, N.Y. B12 2x2x % Torrance, Calif. C11					
% x % x 1/8	1¼x1¼x½Torrance,Calif. C11	1%x1%x1% Torrance, Calif. C11	2x2x ₁₈ IndianaHarbor,Ind. 1-2					
$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ Minnequa, Colo. C10	1½x1½x½Youngstown U5 1½x1½x½	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{4}$ x $$	2x2x 7 Minnequa, Colo. C10					
%x%x7 IndianaHarbor, Ind. I-2	to 1¼x1¼x ⁷ / ₁₆ Alton,Ill. L1 1¼x1¼x ¹ / ₈	1%x1%x4 .AlabamaCity.Ala. R2	2x2x½AlabamaCity,Ala. R2 2x2x½Minnequa,Colo. C10					
%x%xii ga. Tonawanda,N.Y. B12 %x%x%	to 1¼x1¼x ₁₆ Madison,Ill. L1	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{16}$ Aliquippa, Pa. Jo. $1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{16}$ Atlanta A11	2x2xLackawanna.N.Y. B2					
%x%x%IndianaHarbor,Ind. I-2	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{3}$. Tonawanda, N.Y. B12 $1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{16}$. AlabamaCity, Ala. R2	1 ½ x 1 ½ x 1 ½	to 2½x2½x 2¼x2¼x%Knoxville, Tenn. K6					
34 x 34 x 36	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1% X1% X18 Knoxville, Tenn. K6	21/ v21/ v1/ Minnagua Cala Cita					
%x%x%Minnequa,Colo. C10 %x%x%Seattle N14	$1\frac{1}{4}\times1\frac{1}{4}\times\frac{1}{16}$	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{7}{18}$ Minnequa, Colo. C10 $1\frac{3}{4}$ x $1\frac{3}{4}$ x $1\frac{3}{8}$. Tonawanda, N.Y. B12	$2\frac{1}{4}$ $\times 2\frac{1}{4}$ $\times 1\frac{1}{8}$ $\times 1$					
%x%x%Tonawanda,N.Y. B12	$1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ Knoxville, Tenn. K6 $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ Milton. Pa. B6	1% x1% x 3 Torrance, Calif. C11	2½x2½x½Knoxville, Tenn. K6 2½x2½x½Minnequa, Colo. C10					
$\frac{3}{4}$ x $\frac{3}$	1 4 XI 4 X 2 Minnequa, Colo. Clu	1 % x 1 % x ¼ . AlabamaCity, Ala. R2	24x24x5 Knoxville Tenn. K6					
to %x%x ⁷ / ₁₆ Alton,Ill. L1	$1\frac{1}{4}\times1\frac{1}{4}\times\frac{1}{16}$ Portland, Oreg. 04 $1\frac{1}{4}\times1\frac{1}{4}\times\frac{1}{16}$ Seattle N14	1% x1% x	2¼x2¼x½ Minnequa, Colo. C10 2¼x2¼x% Knoxville, Tenn. K6					
to $\% x \% x \frac{7}{18}$ Madison, Ill. L1	$1 \frac{1}{4} \times 1 \frac{1}{4} \times \frac{3}{16}$, Tonawanda, N.Y. B12	1%x1%x4	24x24x%Minnequa, Colo. C10					
$\frac{34 \times 34 \times 36}{\text{to } 3\times 3\times 36}$ Kansas City, Mo. S5	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{16}$ Torrance, Calif. C11 $1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{16}$ Youngstown U5	$1\% \times 1\% \times \%$ Ind.Harbor,Ind. I-2 $1\% \times 1\% \times \%$ Knoxville,Tenn. K6	$2\frac{1}{4} \times 2\frac{1}{4} \times \frac{7}{18}$ Minnequa, Colo. C10 $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{2}$ Minnequa, Colo. C10					
34 x 34 x 1/8	1 ½ x1 ½ x ½ . AlabamaCity, Ala. R2	1%x1%x¼Minnequa,Colo. C10 1%x1%x¼ .Tonawanda,N.Y. B12	2½x2½x½Knoxville, Tenn. K6					
to 6x6x1	1¼x1¼x¼	1%x1%x4 Torrance, Calif. C11	21/2 X2 1/2 X & Tonawanda N V R12					
$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{18}$ Milton.Pa. B6 $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{18}$ Minnequa, Colo. C10	14x14x4Ind.Harbor,Ind. I-2 14x14x4Knoxville,Tenn, K6	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{4}$ Youngstown U5 $1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{16}$. AlabamaCity, Ala. R2	$2\frac{1}{2}$ \times $2\frac{1}{2}$ \times $1\frac{1}{2}$. AlabamaCity, Ala. R2 $2\frac{1}{2}$ \times $2\frac{1}{2}$ \times $2\frac{1}{2}$ Aliquippa, Pa. J5					
3/4 x 3/4 x	1 1 1 x 1 1 x 1 x 1 x 1 x 1 x 1 x 1 x 1	1 % x1 % x 1 6 Ind. Harbor, Ind. 1-2 1 % x1 % x 1 6 Knoxville, Tenn. K6	2½x2½x-2Clairton.Pa. U5					
to 2½x2½xSeattle B3	1 ¼ x1 ¼ x ¼ Minnequa, Colo. C10 1 ¼ x1 ¼ x ¼ Portland, Oreg. O4	1%x1%x4 Minnequa, Colo. C10	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{18}{15}$ Fontana, Calif. K1 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{15}$ Gary, Ind. U5					
$\frac{\% \times \% \times \frac{3}{32}}{\% \times \% \times \frac{7}{64}}$ Minnequa, Colo. C10	1 ½ x1 ½ x ½	1% x1% x 1	2½x2½x ¹³ / ₂ Ind.Harbor,Ind. I-2 2½x2½x ³ / ₁₆ Knoxville,Tenn. K6					
%x%x11 ga. Tonawanda,N.Y. B12 %x%x½	14x14x4 Torrance, Calif. C11	1%x1%x%Minnequa,Colo. C10	2½x2½x½ Minnequa, Colo, C10					
%x%x%	$1\frac{1}{4}\times1\frac{1}{4}\times\frac{1}{4}$	2x2x11 ga, Tonawanda, N.Y. B12	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{16}$ Portland, Oreg. 04 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{16}$ Seattle N14					
%x%x%IndianaHarbor,Ind. I-2 %x%x%Knoxville,Tenn. K6	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $1\frac{1}{6}$ Knoxville, Tenn. K6 $1\frac{1}{4}$ x $1\frac{1}{4}$ x $1\frac{1}{6}$ Minnequa, Colo. C10	2x2x1/6Aliquippa,Pa. J5	2½x2½x½ .Tonawanda,N.Y. B12					
%x%x%Minnequa,Colo. C10 %x%x%Tonawanda,N.Y. B12	1%x1%x5 .Tonawanda,N.Y. B12	2x2x½	2½x2½x¼ .AlabamaCity, Ala. R2					
%x%x½Youngstown U5 %x%x½IndianaHarbor,Ind. 1-2	1%x1%x1% x1% .Tonawanda, N.Y. R12 1½x1½x11 ga. Tonwnda, N.Y. B12	$2x2x\frac{1}{8}$ IndianaHarbor,Ind. I-2 $2x2x\frac{1}{8}$ Knoxville.Tenn. K6	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{4}$ Aliquippa,Pa. J5 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{4}$ Clairton,Pa. U5					
%x%x ₁₆ Minnequa,Colo. C10	1½x1½x½ .AlabamaCity,Ala. R2	2x2x ½ Minnequa, Colo. C10 2x2x ½ Pittsburg, Calif, C11	$2\frac{1}{2}\times2\frac{1}{2}\times\frac{1}{4}$ Fontana Calif. KI $2\frac{1}{2}\times2\frac{1}{2}\times\frac{1}{4}$ Gary, Ind. U5					
1x1x12 ga Tonawanda, N.Y. B12	1½x1½x½Aliquippa,Pa. J5 1½x1½x½Atlanta A11	2x2x1/6 Portland Oreg ()4	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{4}$ Ind.Harbor,Ind. I-2					
$1 \times 1 \times \frac{7}{64}$	1½x1½x½	2x2x1/8Tonawanda, N.Y. B12	2½x2½x¼Minnequa,Colo, C10					
1x1x11 gaTonawanda, N.Y. B12 1x1x1/4	1½x1½x½Knoxville, Tenn. K6	2x2x½Torrance,Calif. C11 2x2x½Youngstown U5	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{4}$ Portland, Oreg. O4 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{4}$ Seattle N14					
1x1x1/2	1½x1½x½Milton,Pa. B6 1½x1½x½Minnequa,Colo. C10	2x2x Tonawanda, N.Y. B12	2½x2½x¼ .Tonawanda,N.Y. B12 2½x2½x¼ Torrance, Calif. C11					
1x1x 1/8IndianaHarbor, Ind. I-2 1x1x 1/8Knoxville, Tenn. K6	1½x1½x½Pittsburg,Calif. C11 1½x1½x½Portland,Oreg. 04	2x2x 8 to 2x2x 1/4	2%x2%x& .AlabamaCity.Ala. R2					
1x1x½Milton,Pa. B6 1x1x½Minnequa,Colo. C10	1½x1½x½Seattle N14	$\begin{array}{c} 2x2x\frac{5}{32} \\ \text{to } 2x2x\frac{1}{4} \\ \end{array}$	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$ Aliquippa,Pa. J5 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$ Clairton,Pa. U5					
1x1x1/4Portland.Oreg. O4	1½x1½x½Tonawanda,N.Y. B12 1½x1½x½Torrance,Calif. C11	2x2x3AlabamaCity, Ala. R2	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{8}$ Fontana, Calif. K1 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{8}$ Gary, Ind. U5					
1x1x1/8Seattle N14 1x1x1/8Tonawanda, N.Y. B12	1½x1½x½Youngstown U5	2x2x isAliquippa.Pa. J5 2x2x isAtlanta A11	2½x2½xInd. Harbor, Ind. I-2					
1x1x½Torrance,Calif. C11 1x1x½Youngstown U5	to $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{7}{18}$ Alton, Ill. L1 $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$	2x2x	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{8}$ Knoxville, Tenn. K6 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{8}$ Minnequa, Colo. C10					
1x1x1/8	to 1½x1½x7gMadison,Ill. L1	2x2x ₁₆ Fontana, Calif. K1 2x2x ₁₆ Gary, Ind. U5	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{18}$ Portland, Oreg. 04 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{18}$ Seattle N14					
to 1x1x ₁₆ Alton,Ill. L1	1½x1½x½ to 2½x2½x%Niles,Calif. P1	$2x2x\frac{3}{16}$ IndianaHarbor,Ind. 1-2 $2x2x\frac{3}{16}$ Knoxville, Tenn. K6	21/x21/x . Tonawanda, N.Y. B12					
to $1x1x\frac{7}{16}$ Madison,Ill. L1 $1x1x\frac{1}{6}$	1 14x14x 5 Tonawanda N V RI2	$2x2x\frac{3}{16}$ Minnequa, Colo. C10	2½x2½x½Torrance, Calif. C11 2½x2½x¾ .AlabamaCity, Ala. R2					
to 3x3x1/4Marion, O. P11	1½x1½x ³ / ₁₈ .AlabamaCity,Ala. R2 1½x1½x ³ / ₁₈ Aliquippa,Pa. J5	2v2v3 Portland, Oreg. O4	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{9}{8}$ Aliquippa,Pa. J5 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{9}{8}$ Clairton,Pa. U5					
1x1x \(\frac{5}{34} \)	1½x1½x½x½	2x2x3 Tonawanda.N.Y. B12	2 ½ x 2 ½ x ¾ Fontana. Calif. K1					
1x1x18	1½x1½x½Ind.Harbor,Ind. 1-2	2x2x 1 Torrance, Calli. C11	2½x2½x%					
1x1x ₁₃ IndianaHarbor,Ind. f-2 1x1x ₁₃ Knoxville,Tenn. K6	$1\frac{1}{2}\times1\frac{1}{2}\times\frac{3}{16}$ Knoxville, Tenn. K6 $1\frac{1}{2}\times1\frac{1}{2}\times\frac{3}{16}$ Milton.Pa. B6	2x2x ¹ / ₄ AlabamaCity,Ala. R2 2x2x ¹ / ₄ Aliquippa,Pa. J5	2½x2½x%Knoxville, Tenn. K6 2½x2½x%Minnequa, Colo. C10					
$1x1x_{16}^{3}$	1½x1½x16	2x2x ¹ / ₄ Atlanta A11 2x2x ¹ / ₄ Clairton,Pa. U5	2½x2½x%Portland,Oreg. 04					
$1 \times 1 \times$		2x2x ¹ / ₄ Fontana.Calif. K1	2½x2½x%					
1x1x ₁₈ Tonawanda, N.Y. B12	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{18}$ Seattle N14 $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{18}$. Tonawanda. N. Y. B12	2x2x¼Gary,Ind. U5 2x2x¼IndianaHarbor,Ind. I-2	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$ Torrance. Calif. C11 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$ Ind. Harbor, Ind. [-2]					
1x1x 3 Torrance, Calli. Cil	1½x1½x½ Torrance, Calif. Cli	2x2x¼Knoxville, Tenn. K6 2x2x¼Minnequa, Colo. C10	2½x2½x ⁷ / ₈ Minnequa,Colo. C10					
1x1x1/4Atlanta Al1	1½x1½x¼ .AlabamaCity,Ala. R2	2x2x 4Pittsburg, Calif. C11	2 ½ x 2 ½ x ½ Aliquippa. Pa. J5					
1x1x1/4IndianaHarbor, Ind. [-2]	11/211/21/	2x2x¼Portland, Oreg. O4 2x2x¼Seattle N14 2x2x¼Tonawanda, N.Y. B12	2½x2½x½Clairton,Pa. U5 2½x2½x½Fontana,Calif. K1					
1x1x 4 Knoxville, Tenn. Kö 1x1x 4 Minnequa, Colo. C10	1½x1½x½ 1½x1½x½ Ind.Harbor,Ind. I-2	2x2x¼Tonawanda,N.Y. B12 2x2x¼Torrance,Calif. C11	2½x2½x½					
1x1x½Portland,Oreg. O4 1x1x½Seattle N14	1½x1½x¼Knoxville,Tenn. K6 1½x1½x¼Milton.Pa. B6	2x2x &AlabamaCity, Ala. R2	21/4 x 21/4 x 1/2 Knoxville, Tenn. K6					
1x1x4Torrance, Calif. C11	1 1/4 x 1 1/4 x 1/4 Minnequa, Colo, C10	2x2x 18Aliquippa, Pa. J5 2x2x 18Atlanta A11	2½x2½x½ Minnequa. Colo. C10 2½x2½x½ Portland. Oreg. O4					
1x1x 1/4Youngstown U5	1½x1½x¼Pittsburg,Calif. C11 1½x1½x¼Portland.Oreg. O4	2x2x f	2½x2½x½Seattle N11					
to 2½x2½x. Bethlehem.Pa. B2	1½x1½x½Seattle N14	2x2x 15	3x3x 1/8Knoxville, Tenn. K6					
1%x1%x11 ga. Tonwda., N.Y. B12 1%x1%x% Ind. Harbor, Ind. 1-2	1 1/2 x 1 1/2 x 1/4 Torrance, Calif. C11	2x2x 16Knoxville, Tenn. K6	3x3x\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1½x1½x¼Youngstown U5 1½x1½x½ 18 .AlabamaCity.Ala. R2	2x2x &Portland, Oreg. 04	3x3x1/4Portland,Oreg. 04					
1½x1½x½Youngstown U5 1½x1½x½Youngstown U5 1½x1½x½Youngstown U5	1½x1½x5Ind.Harbor.Ind. I-2	$2x2x\frac{5}{16}$	3x3x fsKnoxville, Tenn. K6 3x3x fsPortland, Oreg. O4					
1½x1½x½Ind. Harbor, Ind. 1-2 1½x1½x½Ind. Harbor, Ind. 1-2 1½x1½x¼Ind. Harbor, Ind. 1-2	1 14 x 1 16 x 5 Minnegua, Colo, C10	2x2x 5	3x3x%Knoxville, Tenn. K6					
1½x1½x½Ind.Harbor,Ind. 1-2 1½x1½x½Atlanta A11	11/v11/v 5 Tonawanda, N.Y. B12	2x2x %AlabamaCity, Ala. R2 2x2x %Aliquippa.Pa. J5	3x3x%Portland, Oreg. 04 3x3x75Knoxville, Tenn. K6					
1¼x1¼x11 ga. Tonawda.,N.Y. B12 1¼x1¼x½ .AlabamaCity,Ala. R2	1½x1½x¾Ind.Harbor.Ind. 1-2 1½x1½x¾ .Tonawanda,N.Y. B12	2x2x %	3x3x ^{7/6} Portland, Oreg. O4 3x3x ^{1/2} Knoxville, Tenn. K6					
1½x1½x½Atlanta All	1% x1% x11 ga. Tonwnda., N.Y. B12	2x2x %Fontana, Calif. K1	3x3x½Portland,Oreg. 04					

January 15, 1951

(Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

Angles, Equal Leg (sq. rt.)

Sizes	Sizes
Produced	Froduced
(inches) Mill Point, Producer	(inches) Mill Point, Producer
%x%x11 ga. Tonawanda, N.Y. B12	1 1/2 x1 1/2 x 1/4 Knoxville, Tenn. K6
%x%x%Atlanta All	1½x1½x½ Tnwnda N.Y. B12
%x%x%Tonawanda,N.Y. B12	1½x1½x½Knoxville, Tenn. K6
%x%x11 ga. Tonawanda, N.Y. B12	1 ½ x1 ½ x ½ Tnwnda., N.Y. B12
%x%x1/8Atlanta A11	1½x1½x3
%x%x%Tonawanda,N.Y. B12	1 ½ x1 ½ x ½ Knoxville, Tenn. K6
1x1x12 ga Tonawanda, N.Y. B12	1 1 x 1 1 x 3 Tnwnda N.Y. B12
1x1x11 ga Tonawanda, N.Y. B12	1½x1½x¼Atlanta A11
1x1x1/k	1 1/2 x 1 1/2 x 1/4 Thwnda., N.Y. B12
1x1x1/4Tonawanda, N.Y. B12	1½x1½x, Tnwnda., N.Y. B12
1x1x 5 Tonawanda, N.Y. B12	1 1/2 x 1 1/2 x 3/2 Tnwnda., N.Y. B12
1x1x13 Tonawanda, N.Y. B12	1% x1% x11 ga. Tnwnda., N.Y. B12
1%x1%x11 gaTnwnda., N.Y. B12	1 % x 1 % x % Tnwnda., N.Y. B12
1%x1%x%Tnwnda., N.Y. B12	1 % x1 % x 5 Tnwnda., N.Y. B12
1%x1%x _{3/2} Tnwnda.,N.Y. B12	1 ½ x 1 ½ x 3 Atlanta A 11
1%x1%x3 Tnwnda., N.Y. B12	$1\frac{3}{4}$ x1 $\frac{3}{4}$ x $\frac{3}{16}$ Thwnda., N.Y. B12
1\%x1\%x\frac{1}{64} \ldots Knoxville, Tenn. K6	1 34 x 1 34 x 34 Atlanta All
1¼x1¼x11 ga. Tnwnda.,N.Y. B12	1% x1% x ½ Tnwnda., N.Y. B12
1¼x1¼x½Atlanta A11	1 % x1 % x 18 Tnwnda., N.Y. B12
1¼x1¼x½Knoxville, Tenn. K6	1%x1%x%Tnwnda., N.Y. B12
1\%x1\%x\%Tnwnda., N.Y. B12	2x2x11 gaTnwnda., N.Y. B12
1¼x1¼x½Knoxville, Tenn. K6	2x2x1/8Thwnda.,N.Y. B12
1¼ x1¼ x 32 Tnwnda., N.Y. B12	$2x2x\frac{5}{3}$ Tnwnda.,N.Y. B12 $2x2x\frac{5}{3}$ Tnwnda.,N.Y. B12
1 ¼ x1 ¼ x 1 ½ Atlanta A11	2x2x 4Atlanta A11
1 1/4 x1 1/4 x 1/3 Knoxville, Tenn. K6	2x2x1/4
1¼x1¼x¾Tnwnda.,N.Y. B12 1¼x1¼x¼TnwndaN.Y. B12	2x2x 5Tnwnda., N.Y. B12
	2x2x %
1%x1%x ₃ Tnwnda.,N.Y. B12	2 1/2 x 2 1/2 x 3/2 Tnwnda N.Y. B12
1%x1%x ₁₆ Tnwnda.,N.Y. B12	2 ½ x2 ½ x 3 Tnwnda., N.Y. B12
1½x1½x ⁷ / _{2d} Knoxville, Tenn. K6	2½x2½x¼Tnwnda., N.Y. B12
1½x1½x11 ga. Tnwnda., N.Y. B12	21/2 x21/2 x 1/2 Tnwnda., N.Y. B12
1½x1½x½	2½x2½x%Tnwnda.,N.Y. B12

La Angles, Unequal Leg (fillet)

%x%x11 ga,Tnwnda., N.Y. B12
%x%x11 gaTnwnda.,N.Y. B12 %x%x%Tnwnda.,N.Y. B12
1x \% x \frac{7}{24} \dots Ind. Harbor, Ind. I-2
$1 \times \% \times \frac{7}{64}$ Ind.Harbor,Ind. I-2 $1 \times \% \times 11$ gaTnwndaN.Y. B12
1x5%x1/8
1x % x ½
1x%x 1/6
1x%x%Ind.Harbor,Ind.1-2
1x%x%Tnwnda,N.Y. B12 1x%x%Youngstown U5
1X%X% Youngstown OJ
1X % X % 10 3X2X %Marion, O. 1 11
1X%X3411WHUA,IV.I. DIZ
1X%XXXIIIII.Haiboi,IIIII. 1-2
1x%x% Thwhda,N I. Bl. 1x%x% Youngstown U5 1x%x% to 3x2x% Marion,O. Pl. 1x%x% Thwhda,N,Y. Bl. 1x%x% Ind. Harbor, Ind. I-2 1x%x% Thwhda,N,Y. Bl. 1x%x% Youngstown U5
24 /4 1/8 · · · · · · · · · · · · · · · · · · ·
1\% x1x\%
1\frac{1}{4}\text{x1x\frac{1}{3}} \displays \d
1%x%x½
1%x%x %Atlanta A11
1%x%x%
1%x%x%Ind.Harbor,Ind. I-2
1%x%x%Youngstown U5
1%x%x3
1%x%x% Gary,Ind.U5 1%x%x% Ind.Harbor,Ind. I-2 1%x%x% Youngstown U5 1%x%x\\ Gary,Ind. U5 1\%x\\ x\\ \ Gary,Ind. U5
$1\% \times \% \times \frac{16}{1}$ Ind. Harbor, Ind. I-2 $1\% \times \% \times \frac{16}{16}$ Youngstown U5
1%x7/8x
to 2½ x2xSanFrancisco B3
1%x1x11 ga. Tnwnda., N.Y. B12
1%x1x1/2Tnwnda., N.Y. B12
1%x1x. Tnwnda., N.Y. B12
1%x1x Tnwnda., N.Y. B12
1%x1%x11 ga, Tnwnda., N.Y. B12
1%xx/xx
1%x1%x Tnwnda., N.Y. B12
1%x1%x2 Tnwnda., N.Y. B12
1%x1%x1/4 Tnwnda., N.Y. B12
1½x¾x½Youngstown U5
1½x1x½Atlanta A11
1½x1x½Tnwnda., N.Y. B12
$1\frac{1}{2}$ xlx $\frac{1}{2}$ Tnwnda., N.Y. B12
$1\frac{1}{2}$ x 1 x $\frac{3}{16}$ Tnwnda., N.Y. B12
1½x1x¼Tnwnda.,N.Y. B12
$1\frac{1}{2}$ xlx $\frac{8}{16}$ Tnwnda., N.Y. B12
1½x1¼x11 ga. Tnwnda., N.Y. B12
1½x1½x½ Thwnda., N.Y. B12
1½ x x ½ Youngstown U5 1½ x 1 x ½ Atlanta A11 1½ x 1 x ½ Tnwnda., N.Y. B12 1½ x 1 ½ x 1 ½ Tnwnda., N.Y. B12 1½ x 1½ x 1½ Tnwnda., N.Y. B12 1½ x 1½ x ½ Tnwnda., N.Y. B12
1 1/2 XI 1/4 X 7/8 Thwnda., N. Y. B12
1/2X1/4X18Youngstown U5
1½x1¼x¼ Tnwnda,,N.Y. B12 1½x1¼x¼ Tnwnda,,N.Y. B12 1½x1kx1 ga Tnwnda,,N.Y. B12 1½x1½ Tnwnda,,N.Y. B12 1½x1½ Tnwnda,,N.Y. B12 1½x1½x½ Tnwnda,,N.Y. B12 1½x1½x½ Gary,Ind. U5 1½x1½x½ Gary,Ind. U5 1½x1½x½
1% xixii gaThwhda., N.Y. B12
1% XIX %Triwnda., N.Y. B12
$1\% \times 1\times \frac{3}{64}$
1 % x1 % x11 ga. Tnwnda., N.Y. B12
1%x1%x%
1% x1 ½ x½ Youngstown U5 1% x1½ x½ Tnwnda., N.Y. B12
1% X1 % X 3 Thwnda., N.Y. B12
1% x1 1 x 1 3 Gary, Ind. U5
1% X1% X18
$1\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{16}$
1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½
1%x1\%x\s
1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½ 1%x1½x½

Aligics, en	equal zeg (iniet)	2½x2x3
Brando NV P19	1%x1%x	2½x2x3
%x%x11 gaTnwnda.,N.Y. B12 %x%x%Tnwnda.,N.Y. B12	to 2½ x2xLosAngeles B3	2½ x2x 3 .
	1% x1 ¼ x	2½ x2x 3 .
$1 \times \frac{7}{64}$ Ind. Harbor, Ind. I-2	to 2½ x2xSeattle B3	2½ x2x 3 2½ x2x 3
1x % x 11 ga Tnwnda., N. Y. B12	1% x1½ x11 ga. Tnwnda., N.Y. B12	2½x2x18 .
1x5%x1/8Atlanta A11	1%x1½x½ Tnwnda., N.Y. B12	2½x2x38
1x 5% x 1/8	1% x1 1/2 x 5 Tnwnda N.Y. B12	$2\frac{7}{2}$ x 2 x $\frac{1}{16}$.
1x % x % Ind. Harbor, Ind. I-2	1%x1%x3 Tnwnda., N.Y. B12 1%x1%x% Tnwnda., N.Y. B12	$2\frac{1}{2} \times 2 \times \frac{1}{16}$.
1x % x 1/8 Tnwnda, N.Y. B12	1% x1 ½ x½ Tnwnda., N.Y. B12	2½ x2x 16 .
1x 5% x 1%	1% x1½ x 4 Tnwnda., N.Y. B12	2½x2x ³ / ₁₆ .
1x % x % to 3x2x %Marion, O. P11 1x % x 3Tnwnda, N.Y. B12	1%x1½x15 Tnwnda., N.Y. B12 1%x1½x% Tnwnda., N.Y. B12	2½ x2x 3
1x%x35Ind.Harbor,Ind. I-2	2x1¼x⅓Youngstown U5 2x1¼x⅓Youngstown U5 2x1¼x¼Youngstown U5	2½ x2x 3 .
1x % x 3 Ind. Harbor, Ind. I-2 1x % x 3 Tnwnda., N.Y. B12	2x1½x ³ ₁₆ Youngstown U5	21/2 x 2 x 3
1x % x %Youngstown U5	2x1 ½ x ½ Youngstown U5	2½x2x¾ . 2½x2x¼ .
	2x1 % x1 ga Thwnda., N.Y. B12 2x1 % x	2½x2x¼
1¼x1x½Atlanta A11 1¼x1x½Youngstown U5	2x1%x%Thwhda.,N.I. B12	2½x2x¼
1% XIX%	2x1%xxx Inwhua.,N.I. D12	21/2 x2x 1/4
1%x%x ⁷ / ₆₄ Ind.Harbor,Ind. I-2 1%x%x ¹ / ₈ Atlanta A11	2x1 % x % Tnwnda., N.Y. B12 2x1 % x % Tnwnda., N.Y. B12	2½x2x¼ .
1%x%x%Atlanta A11	2x1%x4Tnwnda.,N.Y. B12	21/2×2×1/4 .
1%x $%$ x $%$	2x1%x/sTnwnda.,N.Y. B12 2x1%x%Tnwnda.,N.Y. B12	2½x2x¼
1%x%x%Ind.Harbor,Ind. i-2 1%x%x%Youngstown U5	2x1%x%Tnwnda.,N.Y. B12 2x1½x11 gaTnwnda.,N.Y. B12	$2\frac{1}{2}x2x\frac{1}{4}$.
1%x%x ₁₈	2x1 ½x½ AlabamaCity, Ala. R2	2½x2x¼.
1%x%x ₁₆ Ind.Harbor,Ind. I-2	2x1½x½Aliquippa,Pa. J5	21/2×2×1/4 .
1%x%x16Youngstown U5	2x1½x½Atlanta A11	2½x2x¼.
1%x%x	2x1½x½	2½x2x¼
to 21/2 x2x SanFrancisco B3	2x1½x½Ind.Harbor,Ind. I-2	2½ x2x¼ .
1%x1x11 ga. Tnwnda.,N.Y. B12 1%x1x1/6 Tnwnda.,N.Y. B12	2x1 ½x ½ Knoxville, Tenn. K6	$2\frac{1}{2} \times 2 \times \frac{1}{4}$. $2\frac{1}{2} \times 2 \times \frac{1}{16}$.
1%x1x%Tnwnda.,N.Y. B12	2x1½x½Minnequa,Colo. C10	$2\frac{1}{2}x2x\frac{1}{16}$.
1% x1x $\frac{1}{3}$ Tnwnda., N.Y. B12	2x1½x½Tnwnda.,N.Y. B12	2½ x2x 18 .
1%x1x 1 Tnwnda., N.Y. B12	2x1½x½Torrance, Calif. C11 2x1½x½Youngstown U5	2½x2x 5
1%x1%x11 ga, Thwnda.,N.Y. B12	2x1½x½	2½x2x 16 .
1%x1%x%Tnwnda., N.Y. B12	to 3x2½x% .KansasCity,Mo. S5	2½ x2x 16
1%x1%x3Tnwnda.,N.Y. B12	2x1½x3Tnwnda., N.Y. B12	- /2 18
1%x1%x3Tnwnda.,N.Y. B12 1%x1%x4Tnwnda.,N.Y. B12	2v114v8 AlahamaCity Ala P2	
1½x¾x½Youngstown U5	221 ½ x 1 Allquippa, Pa. J5 221 ½ x 1 Allquippa, Pa. J5 221 ½ x 1 Fontana, Calif. Ki 221 ½ x 1 Fontana, Calif. Ki 221 ½ x 1 Ind. Harbor, Ind. I-2 221 ½ x 2 Ind. Harbor, Ind. I-2 221 ½ x 3 Knoxyllle, Tenn. K6 221 ½ x 3 Minneau Cole Cio	
1½x1x½Atlanta A11	2x1½x3Atlanta A11	
1½x1x½Tnwnda., N.Y. B12	2x1½x¾Fontana, Calif. K1	
1/wiw 5 Transacto NV D19	2x1½x½	
14x1x3. Townda N V. R12	2x1½x3Ind.Harbor,Ind. I-2	
1 % XIX % I HWHOAN. I. B1Z	2x1 ½ x 3 Knoxville, Tenn. K6	
$1\frac{1}{2}$ x1x $\frac{1}{6}$ Tnwnda.,N.Y. B12 $1\frac{1}{2}$ x1 $\frac{1}{4}$ x11 ga. Tnwnda.,N.Y. B12		
1½x1¼x11 ga. Tnwnda., N.Y. B12	2x1½x3Niles,Calif. P1 2x1½x3Portland,Oreg. O4	%x%x% .
1½x1¼x½Tnwnda.,N.Y. B12	2x1½x½Portland, Oreg. 04 2x1½x½Tnwnda., N.Y. B12	%x%x% .
$1\frac{1}{2}$ x $1\frac{1}{4}$ x $\frac{5}{12}$ Thwh da., N.Y. B12 $1\frac{1}{2}$ x $1\frac{1}{4}$ x $\frac{7}{18}$ Thwh da., N.Y. B12	2x1½x18Torrance, Calif. C11	34 x 34 x 36 .
$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{8}$ Thwh da., N.Y. B12 $1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{8}$ Young stown U5	2x1½x½Youngstown U5	%x%x
$1\frac{1}{2}$ $1\frac{1}{4}$	2x1 ½x ½ to 6x4x ½ Houston S5	to 2½ x2½
1 % x1x11 gaTnwnda., N.Y. B12	2x1½x¼AlabamaCity,Ala R2	%x%x%
1 % x1x %Tnwnda., N.Y. B12	2x1½x¼Aliquippa,Pa. J5	1x1x1/8
34 X1X 9 Tnwnda. N.Y. B12	2x1½x¼Atlanta A11	1x1x1/8
34 x1 4 x11 ga Thwnda N V R12	2x1½x¼Fontana, Calif. K1	1x1x 5
1½ x1x 3/64	$2x1\frac{1}{2}x\frac{1}{4}$	1x1x ₁₀ ³³
1% x1¼ x½ Tnwnda., N.Y. B12	2x1½x¼Ind. Harbor, Ind. I-2	1x1x
1%x1%x%Youngstown U5	$2x1\frac{1}{2}x\frac{1}{4}$ Knoxville, Tenn. K6 $2x1\frac{1}{2}x\frac{1}{4}$ Minnequa, Colo. C10	to 2½x2½
1 % x1 ½ x.5 Tnwnda., N.Y. B12	2x1½x¼Niles,Calif. P1	14x14x4
1%x1%x3Gary,Ind. U5	2x1½x¼Portland,Oreg. O4	14x14x4
$1\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{8}{16}$ Thwnda., N.Y. B12	2x1½x¼Tnwnda.,N.Y. B12	11/4×11/4×2/
1% X1% X1% Youngstown U5	2x1 ½x¼ Torrance, Calif. C11	1%x1%x4
1%x1%x½Gary,Ind. U5	2x1½x¼Youngstown U5	14x14x4 14x14x4
1%x1%x%Tnwnda.,N.Y. B12	2x1 ½ x 5 Fontana. Calif. K1	14x14x4
1%x1%x%Youngstown U5	2x1½x 6Ind. Harbor, Ind. I-2	1½x1½x½
1 % x1 % x	2x1½x16Ind. Harbor, Ind. I-2 2x1½x16Knoxville, Tenn. K6	1½x1½x½
to 2½ x2xBethlehem, Pa. B2	$2x1\frac{1}{2}x\frac{8}{16}$ Minnequa, Colo. C10	1%x1%x3

Angles, Unequal Leg (fillet)

Sizes Produced (inches)	Mill Point, Producer	Sizes Produced (inches)	Mill Point, Produ
2x1½x5	Niles,Calif. P1	2½ x2x 5	Knoxville.Tenn.
2x1 ½ x 🖓	Tonawanda, N.Y. B12	2 ½ x2x -2	Minnegua, Colo, C
2x1½x¾	Fontana, Calif. K1 Ind. Harbor, Ind. I-2	2 1/2 x2x 15	Niles, Calif.
2x1½x%	Ind.Harbor,Ind. I-2	2½ x2x 5	Niles,Calif.
2x1½x%	Minnequa, Colo. C10 Tonawanda, N.Y. B12	2½x2x16	Tona.wanda. N. Y. B
2x1½x¾	Tonawanda, N.Y. B12	2½x2x 18	Torrance, Calif. C
21/2 1 1/2 1 3	Aliquippa,Pa. J5 Youngstown U5 Aliquippa,Pa. J5 Minnequa,Colo. C10	2 ½ x2x 5 2 ½ x2x %	Youngstown l
21/211/2218	Aliquippa Pa J5	2 ½ x2x 3/8	Aliquing Po
2½x1½x½	Minnequa,Colo, C10	2½x2x%	Aliquippa,Pa. Clairton,Pa. 1
		2 1/2 x 2x 3/8	Fontana, Calif. I
2½x1½x4	Aliquippa, Pa. Já	2 1/2 x2x 3/8	
2½x1½x4	Fontana.Calif. Ki	2½x2x3/8	Ind.Harbor,Ind. I
2½x1½x16		2½x2x%	Knoxville, Tenn, I
2½x1½x½ 2½x1½x¾	Minnequa, Colo. C10	2½ x2x % 2½ x2x %	Minnequa, Colo. C
		2 ½ x2x %	
2.16 T 16 T 3	Torrance Calif. C11	2½x2x%	Tonawanda. N. Y. B
2½x1½x3 2½x1½x¾	Youngstown U5Aliquippa,Pa. J5Fontana,Calif. K1	2 1/2 x2x 1/8	Torrance, Calif. C
2½x1½x¼	Aliquippa, Pa. J5	2 1/2 x 2x 3/8	Youngstown (
Z 1/2 X 1 1/2 X 1/4	Fontana, Calif. Kl	2 ½ x2x ½	Ind.Harbor,Ind. I
2½x1½x¼			
2½x1½x½ 2½x1½x½	Minnequa, Colo, C10	2 1/2 X Z X	Lackawanna, N.Y. I
2½x1½x¼	Niles, Calif. P1 Tonawanda, N.Y. B12	3x2x3.	Lackawanna, N. Y. I Knoxville, Tenn. I Knoxville, Tenn. I
2½x1½x¼	Torrance, Calif. C11		Minnequa, Colo. C
2 ½ ×1 ½ × ¼	Voungstown II5	3x2x 3 .	Portland, Oreg. (Tonawanda, N.Y. B
21/2 x 1 1/2 x 4/2	Aliquippa, Pa. J5	3x2x 16 3x2x 16 3x2x 16 3x2x 14	Tonawanda, N.Y. B
2 1/2 x 1 1/3 x 4.	Fontana, Calif. K1	3x2x1/4 .	Knoxville, Tenn. F
21/2 x11/2 x 18		3X2X 1/4 .	Minnequa, Colo. C
2½x1½x½ 2½x1½x½ 2½x1½x¾	Aliquippa,Pa. J5 Fontana,Calif, K1 Gary,Ind. U5 Niles,Calif, P1 Tonawanda,N.Y. B12	3x2x1/4	Portland,Oreg. (Tonawanda,N.Y. B
216 v1 16 v.5	Torrance Calif C11	3x2x 5 .	Knoxville, Tenn. I
2 1/2 x 1 1/2 x 1/8			Winneaus Colo C.
21/2×11/2×%	Tonawanda, N.Y. B12	3x2x 5 .	Portland,Oreg. (
		3x2x 5 .	Tonawanda, N.Y. B
2½x2x⅓	Minnequa, Colo. C10 Tonawanda, N.Y. B12 Tonawanda, N.Y. B12	3x2x% .	Knoxville, Tenn. F
2 ½ XZX ½ .	Tonawanda, N. Y. B12	3×2×%	Portland Oreg (
Z 1/0 X Z X 3L	AlahamaCity Ala R9	3x2x % .	Portland, Oreg. (Tonawanda, N. Y. B. Knoxville, Tenn. F Minnequa, Colo. C. Portland, Oreg. (Tonawanda, N. Y. B. Minnequa, Colo. C. Innequa, Colo. C.
21/2 x2x 3 .	Aliquippa,Pa. J5 Clairton,Pa. U5 Fontana,Calif. K1	3x2x½ .	Minnequa, Colo. C:
2½x2x3 .	Clairton, Pa. U5	3x2½x⅓	Knoxville, Tenn. R Knoxville, Tenn. R Tonawanda, N. Y. B Knoxville, Tenn. R Minnequa, Colo. Ci
2½ x2x 3	Fontana, Calif. K1	3X2½X3 3x21/x3	Tongwanda N V P
2½x2x3		3x21/2x1/2	Knoxville Tenn. K
216 72 72 73	Knoxville, Tenn. K6	3x21/2x1/4	Minnequa, Colo. Ci
21/2×2×3	Minnequa, Colo. C10	3x2½x¼	Portland, Oreg. CTonawanda, N.Y. B
2½x2x18 .	Niles, Calif. P1	3x2½x¼	Tonawanda, N.Y. B
2½ x2x 3 .	Niles, Calif. P1Pittsburg, Calif. C11	3x2½x18 3x2½x18	Knoxville, Tenn. K
$2\frac{1}{2}$ x2x $\frac{3}{16}$.	Portland, Oreg. 04 Tonawanda, N.Y. B12	3x21/2x18	Minnequa, Colo. Ci Portland, Oreg. C Tonawanda, N. Y. Bi Knoxville, Tenn. R Minnequa, Colo. Ci Portland, Oreg. C Tonawanda, N. Y. Bi
2 1/2 X 2 X 18 .	Torrance, Calif. C11	3x2½x4	Tonawanda, N.Y. Bi
2½x2x38 2½x2x38 2½x2x¾	Youngstown U5	3x2½x%	Knoxville, Tenn. R
21/2 x2x 1/4 .		3x2½x%	Minnequa, Colo. Cl
2½x2x¼.	Aliquippa,Pa. J5	3XZ ½ X %	Minnequa, Colo. Cl Portland, Oreg. C Tonawanda, N.Y. Bi Knoxville, Tenn. K
2½x2x¼.	Clairton,Pa. U5	3x2½x% 3x2½x ₁₆	Knowkille Tenn K
2½ x2x¼ 2½ x2x¼	Fontana,Calif. Ki		Knoxville, Tenn. K Minnequa, Colo. C1
2½x2x¾	Ind Harbor Ind I-2	3x2½x ⁷ / ₁₈ 3x2½x½	Knoxville, Tenn. K
2½x2x¼.	Knoxville, Tenn. K6	3x2½x½	Minnequa, Colo. Cl
21/2 x2x1/4 .	Alabamatuty, Ala. R.2 Aliquippa, Pa., J5 Clairton, Pa., U5 Fontana, Calif. K1Gary, Ind. U5 Ind. Harbor, Ind. I-2 Knoxville, Tenn. K6 Minnequa, Colo. C10 Wiles Calif. P1	31/2 x21/2 x 3	4Minnequa, Colo. Ci
2½x2x¼.	Niles.Calif. P1 Pittsburg,Calif. C11	3 1/2 XZ 1/2 X 1	Portland, Oreg. Co. Minnequa, Colo. C1
2½x2x¼ .	Pittsburg,Calif. C11	31/x21/x3	Portland Oreg. O
2½ x2x¼ .	Portland, Oreg. 04	31/2 x21/2 x 5	Portland, Oreg. Co. Minnequa, Colo. C1
2½x2x¼ .	Tonawanda, N.Y. B12 Torrance, Calif. C11	31/2 x 2 1/2 x 3	Minnequa, Colo. Cl
21/2 x2x1/4 .	Youngstown U5	3½x2½x1	Minnequa, Colo. Ci
2½ x2x 18	AlabamaCity, Ala. R2	3 1/2 XZ 1/2 X 1/2	Minnegua Colo Ci
2½ x2x 18 . 2½ x2x 18 .	Aliquippa,Pa. J5 Clairton,Pa. U5	31/x3x J	Minnequa, Colo. C1 Minnequa, Colo. C1
21/2 x 2 x 5	Fontana, Calif. K1	3½x3x%	Minnequa, Colo. C1
2½ x2x 18 .		3 1/2 x 3x 7	Minnequa, Colo. C1
21/2 x2x 18 .	Ind. Harbor, Ind. I-2	3½x3x½	Minnequa, Colo. Cl

Tees, Equal Leg

%x%x%Atlanta A11	
%x%x%	
34 x 34 x 36Youngstown U5	
% x 3/4 x	
to 2½ x2½ x Johnstown, Pa. B2	
%x%x½Youngstown U5	
1x1x1/8Atlanta A11	
1x1x1/8	
1x1x1/8Youngstown U5	
1x1x & Tonawanda, N.Y. B12	
1x1x 3Youngstown U5	
1x1x.	
to 21/2 x 21/2 x SanFrancisco B3	
14x14x4Atlanta A11	
1¼x1¼x½Youngstown U5	
11/4 x1 1/4 x 3/6	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
14x14x4Youngstown U5	
1 1 x 1 4 x 1/4 x 1/4 Youngstown U5	
1½x1½x½	

1%x1%x& .	Gary,Ind. U5
1½x1½x3	Youngstown U5
	Atlanta A11
1%x1%x% .	Gary,Ind. U5
1%x1%x4	Youngstown U5
1%x1%x3	Gary,Ind. U5
1% x1% x 3	Youngstown U5
	Gary,Ind. U5
1% x1% x 4	Youngstown U5
2×2×¼	Atlanta All
0-0-1/	Atlanta All
2x2x¼	Gary,Ind. U5
2x2x1/4	Youngstown U5
24x24x4 .	Gary,Ind. U5
2x2x 5	Youngstown U5
24x24x4	Gary,Ind. U5
	Youngstown U5
	Youngstown U5
	Gary, Ind. U5
	Youngstown U5
	Gary,Ind. U5
2½x2½x%	Youngstown U5

(Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

Tees, Unequal Leg

Width by Thickness							Stem Height by Thickness
%x7		۰	۰	٠		2	. 27 x
1% x.140		۰					.2.074x-
							.1.312x-
2x.112	۰	n	۰	×	×		.1 5x-

Mill Point, Producer Gary, Ind. U5 Youngstown U5 Youngstown U5 Youngstown U5

Stem Height by Thickness Flange Width by Thickness 2x.128.....1½x--2x.128......1½x— 2x¼......1½x— 2½x⁹₆₄.....1½x—

Mill Point, Producer Youngstown U5 Youngstown U5 Gary,Ind. U5 Youngstown U5 Flange Width by Thickness Height by Thickness .1%x-

Mill Point, Producer Gary,Ind. U5 Tonawanda,N.Y. B12 Tonawanda,N.Y. B12

Channels

Legislation	
Sizes	
Produced	
(inches)	Mill Point, Producer
1/2 x 1/4 x 1/8	Youngstown U5
	Milton.Pa. B6
	Milton, Pa. B6
	Milton, Pa. B6
	Atlanta A11
	Youngstown U5
% x 5 x 1/3	
to 2½x%x3	.Johnstown,Pa. B2
34 x 23 x . 109	Milton, Pa. B6
% x % x.072	Youngstown U5
%x%x.12	Milton, Pa. B6
34 x 34 x 1/8	Atlanta A11
34 x 36 x 1/8	Gary, Ind. U5
¾ x % x ⅓	Youngstown U5
% x % x 1/8	
to 1%x½x%	LosAngeles B3
34 x 36 x 1/8	
to 2x1x ₁₆	SanFrancisco B3
	Atlanta A11
	Gary,Ind. U5
	Youngstown U5
	Atlanta A11
	Youngstown U5
	Milton,Pa. B6
	Milton, Pa. B6
1x % x13 ga To	nawanda, N.Y. B12
1x % x12 ga To	nawanda, N.Y. B12
	Gary, Ind. U5
	3,,

Sizes	
Produced	
(inches)	Mill Point, Producer
1x%x% .	Madison.Ill. L1
1x % x 1/8 .	Marion, O. P11
1x%x% .	Tonawanda, N.Y. B12
1x%x1/8 .	Youngstown U5
1x 13 x.10	
	Milton,Pa. B6
	Atlanta A11
	Knoxville, Tenn. K6
	Torrance, Calif. C11
	Youngstown U5
1 1/8 x 3/8 x 1/8	KansasCity, Mo. S5
1 1/8 X 1/6 X 1/8	Youngstown U5
11/4 x 1/2 x 1/8	Atlanta A11
1 1/4 x 1/2 x 1/8	
1 1/2 x 1/2 x 1/8	KansasCity, Mo. S5
11/4 x 1/2 x 1/8	Torrance, Calif. C11
14x1/2x1/8	Youngstown U5
11/x 1/x 1/3	Knoxville, Tenn. K6
14x1/2x1/3	Tonawanda, N.Y. B12
11/4 X 16 X 16	Tonawanda, N.Y. B12
14x5x3	Tonawanda, N.Y. B12 Marion, O. P11
11/4 x 11/4 x 1/5 11/5 x 1/5 x 1/5	Marion,O. P11
148 x 1/2 x 3	Marion, O. P11
	Marion, O. P11
1½x½x½ 1½x½x¾	. Tonawanda, N. Y. B12
1 ½ x % x.07	
172 A 78 A. UI	o

Sizes . Produced	
(inches)	AND DOLL DOLL
	Mill Point, Producer
1 ½ x 2 5 x . 08	
11/2 x 1 2 x 1/8	Tonawanda, N.Y. B12
$1\frac{1}{2}$ $x\frac{7}{16}$ $x.09$	Milton,Pa. B6
$1\frac{1}{2}$ $x\frac{29}{64}$ $x.10$	Milton,Pa. B6
1½ x31x.11	Milton,Pa. B6
1½x½x½	Atlanta A11
11/2 x 1/2 x 1/8	Gary,Ind. U5
11/2 x 1/2 x 1/8	KansasCity, Mo. S5
1 1½ x ½ x 1/8	Knoxville, Tenn. K6
1 1/2 x 1/2 x 1/8	Milton, Pa. B6
1 ½ x ½ x ½	Tonawanda, N.Y. B12
1 1/2 x 1/2 x 1/8	Torrance, Calif. C11
1 1/2 x 1/2 x 1/8	Youngstown U5
1 1/2 x 1/2 x 1/3	Knoxville, Tenn. K6
11/2×1/2×1/4	Tonawanda, N.Y. B12
1%x2x%	Youngstown U5
1 1/2 X 1/8 X 1/8	Atlanta All
$1\frac{1}{2}x\frac{9}{15}x\frac{3}{16}$	
1 1/2 X 1/8 X 1/8	Tonawanda, N.Y. B12
1 1/2 x 1/8 x 1/8	Tonawanda, N.Y. B12
11/2 x 3/4 x 1/8	
1%x1%x16	Gary,Ind. U5
1 34 x 1/2 x 3/6	Atlanta A11
1 34 x ½ x 35	Youngstown U5
	Atlanta A11
	Youngstown U5
	Atlanta All
2x ₁₆ x ₁₈	Gary,Ind. U5

1	Sizes	
i	Produced	
j	(inches)	Mill Point, Producer
		Niles,Calif. P1
	$2x_{16}^{9}x_{16}^{3}$. $2x_{16}^{9}x_{16}^{3}$. $2x_{8}^{5}x_{4}^{3}$.	Youngstown U5
	AXISXIS .	Atlanta A11
	2X % X 1/4 .	
	2x%x%.	Youngstown U5
	2x1x½	
	2x1x½	Youngstown U5
	2x1x 3	
	2x1x3	Niles, Calif. P1
	2x1x ₁₈	Portland,Oreg. 04
	2x1x ₁₈	Tonawanda, N.Y. B12
	2x1x 3	Torrance, Calif. C11
	27173	Youngstown U5
ı	2x1x ₁₅ 2½x ₁₃ ×½	Marion,O. P11
	21/8×76×52	Marion, O. P11
	21/8 x 7 x 5	Tonawanda, N.Y. B12
	2½x35x%	
	21/2x15x1/8	Youngstown U5
	21/2 x 15 x 5	
	21/2 x 15 x 5	Tonawanda, N.Y. B12
	21/2 x 1/2 x 1/8	Marion,O. P11
	21/2 X 1/2 X 3	Tonawanda, N.Y. B12
	21/2× 2× 14	Marion,O. P11
	2½x 3 x ¼	Tonawanda. N.Y. B12
	21/2 x 5/8 x 1/8	Atlanta A11
		Youngstown U5
	2½x%x ³ / ₁₈ 3x1.41x.17	Knoxville, Tenn. K6
		Knoxville, Tenn. K6
	4x1.58x.18	Kiloavine, Tehn. Ko

S (Carbon Steel) COLD-FINISH

Flats





Sauares

	7
18-1	.WestAliquippa,Pa. K5
18-2	Monaca, Pa. P8 Hammond, Ind. M13
16-15	Cleveland A7
1/4-21/2	Mansfield, Mass. B5
1/2-4	Ambridge,Pa. W18
1/8-4	BeaverFalls,Pa. M12
1/8-4	Hammond,Ind. L2
1/8-4	Pittsburgh J5
1/8-4 1/2	Buffalo B5
*/8-4 */2 · · · · ·	Harvey,Ill. B5 Massillon,O. R2
19 16	
3-2	Hartford,Conn. R2
3-21/4	Newark, N.J. W18
3 -3	Camden, N.J. P13
3 -4 · · · · · ·	Youngstown F3
1/4-1/t	Waukegan, Ill. A7
1/4-13/4	Monaca, Pa. S17
1/2	Elyria, O. W8
1/ 21/	Hamilton,Ont. R2
1/4 _ 3	SpringCity,Pa. K3
5-24	Plymouth, Mich. P5
5-3	

.....Carnegie,Pa. C12Putnam,Conn. W18 ...MapleHeights,O. C20 ...BeaverFalls,Pa. R2



Rounds

	. WestAliquippa, Pa. Ko
.013-2	Monaca,Pa. P8
d-6	
32_56	Donora,Pa. A7
18-%	Waukegan,Ill. A7
18 78/	Pittsburgh J5
78-6	Hammond, Ind. M13
1/ 1 7	Pittsburgh J5
78-118	Monaca, Pa. S17
	Mansfield, Mass. B5
	Hartford, Conn. R2
	Youngstown F3
1/8 -6	Ambridge,Pa. W18
	BeaverFalls,Pa. M12
1/8−6	Camden, N.J. P13
1/8-6	Chicago W18
⅓-6	Gary,Ind. R2
	Newark, N.J. W18
1/8-8	Massillon, O. R2
1/8-9	Hammond, Ind. L2
1/4-16	Buffalo B5
1/8-16	
32-34	FranklinPark,Ill, N5
	GreenBay, Wis. F7
3-21/	LosAngeles P2
3-21/2	MapleHeights, O. C20
32_3	LosAngeles R2
3. 3 7.	Elyria, O. W8
18 6 8	Hamilton,Ont. R2
3 6	SpringCity Pa W2
1/ 2	SpringCity,Pa. K3 Plymouth,Mich. P5
5 2	Putnam.Conn. W18
	So.Chicago,Ill. W14
%-61/4	Carnegie,Pa. C12

Ве	averFalls	.Pa. R2
So	Chicago,	III. W14
	St.L	ouis M5
Cun	berland,	Md. C19
Pu	tnam, Co	nn. W18
	Pittsb	urgh J5
Pu	tnam.Co	nn. W18
	Pittsh	urgh J5
ver	Pittsh	urgh J5
	SoCum	BeaverFalls So.Chicago, St.I Cumberland, Putnam,Co Pitts Putnam,Co Pittst Putnam,Co Pittst



Hexagons

.028-1	Monaca, Pa. P8
Ta-1West	Aliquippa, Pa. K5
⅓-3½Ha	
16 - 7	.Massillon,O. R2
	Cleveland A7
	artford, Conn. R2
	ansfield, Mass. B5
	verFalls,Pa. M12
	Hammond, Ind. L2
	Buffalo B5
	Harvey,Ill. B5
3 −2	Gary,Ind. R2
$\frac{3}{16} - 2\frac{1}{4}$	Newark, N.J. W18
38-31/8A	mbridge,Pa. W18
	Pittsburgh J5
5-2-3 5%	. Youngstown F3
	Waukegan, Ill. A7
	.Monaca,Pa. S17
	Elyria, O. W8
	LosAngeles R2
	Hamilton, Ont. R2
	Camden, N.J. P13
f _e −2¼Ma ₁	
	ymouth, Mich. P5
	Chicago W18
¹⁵ ₈ −3 S	pringCity,Pa. K3
16-31/2	Carnegle, Pa. C12
	tnam, Conn. W18
	averFalls.Pa. R2
½-1%	Detroit R7
12 = 10	· · · · · · · · · · · · · · · · · · ·

Special Sections

Mill Point, Producer Ambridge,Pa. W18 BeaverFalls,Pa. M12 BeaverFalls,Pa. R2 Buffalo B5 Camden,N.J. P13 Carnegie,Pa. C12 Chicago W18 Cleveland A7

Elyria,O, W8 Hammond,Ind, L2 Hammond,Ind, M13 Harmond, Ind. M13
Harvey, Ill. B5
MapleHeights, O. C20
Massillon, O. R2
Monaca, Pa. P8
Monaca, Pa. S17 Newark, N. J. W18 Plymouth, Mich. P5 Putnam, Conn. W18 SpringCity, Pa. K3 Waukegan, III. A7 West Aliquippa, Pa. Youngstown

(Code number following mill point indicates producing company, key on page 38)

O Round-Welded, Hot-Rolled_

O K	oung-	-weided	, not-	Kolled				
Wall Thickness	Outside Dimensions		Wall Thickness	Outside		Wall	Outside	
(inches)	(inches)	Mill Point, Producer	(inches)	Dimensions (inches)	Mill Point, Producer	Thickness (inches)	Dimensions (inches)	Mill Point, Producer
.028260	625	Detroit S14 Alton,Ill. L1	.065148	9.8/	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1 7/3/3	Warren, O. V4
.042070	706	Alton, Ill. L1	.065148	21/2	Brooklyn, N.Y. R2	.095	1%	Warren, O. V4 Warren, O. V4
.042070 .042075 .042080	1.000	Alton, Ill. L1 Alton, Ill. L1	.065148 .065148 .065148	2% 2%	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1 355	Warren, O. V4 Warren, O. V4
.042080	1.315	Alton, Ill. L1 Alton, Ill. L1	.065148	2%	Brooklyn, N.Y. R2 Ferndale, Mich. R2	.095	1%	Warren.O. V4
.042083	922	Alton, Ill. L1	.065148	3	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1.400	Warren, O. V4 Warren, O. V4
.042083 .042100 .042112	1.050	Alton, Ill. L1 Alton, Ill. L1	.065148 .065148	3½ 3¼	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1.555	Warren, O. V4
		Alton, Ill. L1 Alton, Ill. L1	.065148 .065148	3 %	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1%	Warren, O. V4 Warren, O. V4
.049165	1/2-4	Farrell Pa. B9	.065148	3 %	Brooklyn, N.Y. R2	.095	1.670	Warren, O. V4 Warren, O. V4
.042120 .049165 .050120	1.500	Alton, Ill. L1 Alton, Ill. L1	.065148 .065148	3%	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095 .095 .095 .095 .095	1%	Warren, O. V4
		Alton, Ill. L1 Alton, Ill. L1			Brooklyn, N.Y. R2 Cleveland R2			Warren, O. V4 Warren, O. V4
.050120 .062120 .062120 .062120	2.000	Alton.Ill. L1	.065165 .065165 .065180	1 %	Cleveland R2	.095 .095 .095 .095 .095	115	Warren, O. V4 Warren, O. V4
.062120	2.375	Alton,Ill. L1 Alton,Ill. L1	.065180	2	Cleveland R2 Cleveland R2	.095	218	Warren, O. V4 Warren, O. V4
.063083	1½-3	Piqua, O. A10 Sharon, Pa. S21			Cleveland R2 Cleveland R2	.095	216	Warren, O. V4
.065	1/2-4	OilCity, Pa. J5	.065220 .065220	2%	Cleveland R2	.095	2 3 2 205	Warren, O. V4 Warren, O. V4
.062120 .063083 .065 .065 .065	34-2	Evanston, Ill. M15 Toledo, O. T8	.065220	25/8	Cleveland R2 Cleveland R2	.095	21/4	Warren, O. V4
		Warren, O. V4 Warren, O. V4	.065220 .065220 .065220 .065220	$2\frac{1}{2}$	Cleveland R2 Cleveland R2	.095	2%	Warren, O. V4 Warren, O. V4
.065	138	Warren, O. V4	.065220	3	Cleveland R2 Cleveland R2	.095	21/2	Warren, O. V4 Warren, O. V4
.065	· · · · · · 1 ½ · · · · · · 1 ½	Warren, O. V4 Warren, O. V4	.065220	31/4	Cleveland R2	.095	25/8	Warren, O. V4
.065 .065 .065 .065 .065	13 13-	Warren, O. V4 Warren, O. V4	.065220	3%	Cleveland R2 Cleveland R2	.095	2%	Warren, O. V4 Warren, O. V4
.065	11/4	Warren, O. V4	.065220 .065220 .065220 .065220	3%	Cleveland R2 Cleveland R2	.095 .095 .095 .095 .095	2.905	Warren, O. V4 Warren, O. V4
.065 .065 .065 .065 .065	1.335	Warren, O. V4 Warren, O. V4			Cleveland R2			Warren, O. V4
.065	1.355	Warren, O. V4 Warren, O. V4	.065220 .065220	41/2	Cleveland R2 Cleveland R2	.095	3	Warren, O. V4 Warren, O. V4
.065 .065 .065 .065 .065 .065 .065 .065	1.400	Warren, O. V4 Warren, O. V4	.065220		Cleveland R2	.095 .095 .095 .095 .095	31/2	Warren, O. V4 Warren, O. V4
.065	1.555	Warren, O. V4 Warren, O. V4	0.00		Sharon, Pa. S21 Warren, O. V4	,095	3%	Warren, O. V4
.065	1%	Warren, O. V4	.083 .083 .083 .083 .083 .083 .083 .083	%-3	Sharon, Pa. S21 Warren, O. V4	.109	15	Sharon, Pa. S21 Warren, O. V4
.065	1.670	Warren, O. V4 Warren, O. V4	.083	}}	Warren, O. V4			Warren, O. V4 Warren, O. V4 OilCity, Pa. J5
.065	134	Warren, O. V4 Warren, O. V4	.083	¾-2	Warren, O. V4 Evanston, Ill. M15	.109 .109 .109 .109 .109 .109	1 k	Warren, O. V4
.065	1%	Warren, O. V4	.083	%-4	OilCity,Pa. J5 Warren,O. V4	.109	1 % 1 %	Warren, O. V4 Warren, O. V4
.065	1.9 1}§	Warren, O. V4 Warren, O. V4	.083	15	Warren, O. V4	109	1.3	Warren, O. V4 Warren, O. V4
.065	2	Warren, O. V4 Warren, O. V4	.083	14	Warren, O. V4 Warren, O. V4	.109	1 2 2	Warren, O. V4
.065 .065 .065 .065 .065 .065 .065 .065	21/8	Warren, O. V4 Warren, O. V4	.083	1%	Warren, O. V4 Warren, O. V4	109 109 109 109 109 109 109 109	15	Warren, O. V4 Warren, O. V4
.065	2.205	Warren, O. V4 Warren, O. V4 Warren, O. V4	.083	132	Warren, O. V4 Warren, O. V4	.109	1 355	Warren, O. V4 Warren, O. V4
.065	2.343	Warren, O. V4	.083	12	Warren, O. V4	.109	1%	Warren, O. V4 Warren, O. V4
.065 .065 .065 .065	2%	Warren, O. V4 Warren, O. V4	.083	· 1 1/8	Warren, O. V4 Warren, O. V4	.109	1½	Warren, O. V4
.065	29	Warren,O. V4	.083	1.335 1.355	Warren, O. V4 Warren, O. V4	.109	1.555	Warren, O. V4 Warren, O. V4
		Warren, O. V4 Warren, O. V4	.083	1%	Warren, O. V4 Warren, O. V4	.109	1 870	Warren, O. V4 Warren, O. V4
.065 .065 .065 .065	2%	Warren,O. V4 Warren,O. V4	.083	11/2	Warren, O. V4	.109	111	Warren, O. V4
.065	215	Warren, O. V4 Warren, O. V4	.083	$egin{smallmatrix} \dots & 1.555 \\ \dots & 1 & 1 \\ 1 & 1 \end{bmatrix}$	Warren, O. V4 Warren, O. V4	.109 .109 .109 .109	1.786	Warren, O. V4 Warren, O. V4
		Warren, O. V4 Warren, O. V4	.083	1%	Warren, O. V4 Warren, O. V4	.109	1%	Warren, O. V4 Warren, O. V4
.065	31/8	Warren, O, V4	.083	111	Warren.O. V4	.109	$\dots \frac{1}{2} \frac{15}{16}$	Warren, O. V4 Warren, O. V4
.065	3%	Warren, O. V4 Warren, O. V4	.083	1.786	Warren, O. V4 Warren, O. V4	.109 .109 .109 .109 .109	213	Warren, O. V4
065 083	7/6	Ferndale, Mich. R2 Ferndale, Mich. R2	.083	1% 1.9	Warren, O. V4 Warren, O. V4	.109	2½ 23	Warren, O. V4 Warren, O. V4
.065083 .065083	114	Ferndale, Mich. R2 Ferndale, Mich. R2	.083	115	Warren,O. V4	.109	2.205	Warren, O. V4 Warren, O. V4
.065095	3/4	Brooklyn, N.Y. R2	.000	472	Warren, O. V4 Warren, O. V4	.109	2.343	Warren, O. V4 Warren, O. V4
.065095	1/4	Cleveland R2 Brooklyn,N.Y. R2	.083	23	Warren, O. V4 Warren, O. V4	.109	21/2	Warren, O. V4
.065095	41/8	Cleveland R2 Brooklyn, N. Y. R2	.083	2.205	Warren,O. V4 Warren,O. V4	.109	2%	Warren, O. V4 Warren, O. V4
.065095 .065120 .065120	1	Brooklyn, N.Y. R2 Shelby, O. O2 Brooklyn, N.Y. R2	.083	2.343	Warren, O. V4 Warren, O. V4			Warren, O. V4 Warren, O. V4
.065120 .065120	1	Cleveland R2	063	0.17	Warren, O. V4	.109 .109 .109 .109	2.905	Warren, O. V4
.065120	1 1/8	Brooklyn, N.Y. R2 Cleveland R2	.083	2 %	Warren, O. V4 Warren, O. V4	.109	2§§	Warren, O. V4 Warren, O. V4
.065120	1 1/4	Brooklyn, N.Y. R2 Cleveland R2	.083	2.76	. Warren.O. V4	.109	3 32	Warren, O. V4 Warren, O. V4
.065120	1 34	Ferndale, Mich. R2	.083	2.905	Warren, O. V4 Warren, O. V4	.109	31%	Warren, O. V4 Warren, O. V4
065-120 065-120 065-120 065-120 065-120 065-120 065-120 065-120 065-120	1%	Brooklyn, N.Y. R2 Cleveland R2 Ferndale, Mich. R2	.083	2 18 2 3 1	Warren, O. V4 Warren, O. V4	.109 .109 .109 .109	3%	Warren, O. V4
.065120	1 1/2	Ferndale, Mich. R2	.063 .083 .083 .083 .083	3	Warren, O. V4 Warren, O. V4	.120	1	Warren, O. V4 Warren, O. V4
.065120	1%	Ferndale, Mich. R2 Ferndale, Mich. R2	.083	3½	Warren, O. V4 Warren, O. V4	.120	135	Warren, O. V4
.065120	17/8	Ferndale, Mich. R2	.083	3%	Warren, O. V4 Warren, O. V4	.120	1	Warren, O. V4 Warren, O. V4
.065120 .065120 .065120 .065120 .065120 .065134 .065134	11/2	Brooklyn, N.Y. R2 Cleveland R2 Ferndale, Mich. R2	.095	11	Warren, O. V4 Warren, O. V4	.120 .120 .120 .120 .120 .120 .120 .120	1 3 1 3	Warren, O. V4 Warren, O. V4 Warren, O. V4
.065134	2	Ferndale, Mich. R2	.095 .095 .095 .095	¾-3	Sharon, Pa. S21	.120	11/4	Warren, O. V4
.065134 .065134 .065134	21/8	Ferndale, Mich. R2	.095	· · · ½	Warren, O. V4 Warren, O. V4	.120	$1 \frac{1}{16}$	Sharon, Pa. S21 Warren, O. V4 Warren, O. V4
.065134	2 %	Ferndale, Mich. R2 Ferndale, Mich. R2	.095	1-2	Warren, O. V4 Evanston, Ill. M15	.120	1.335 1.355	Warren, O. V4
		Ferndale Mich. R2	095	1_4	OilCity,Pa. J5 Warren,O. V4	.120	1%	Warren, O. V4 Warren, O. V4
.065148 .065148	134	Brooklyn, N.Y. R2	.095	132	Warren, O. V4	.120	1½-4	OllCity.Pa. J5
.065148	2	Brooklyn, N.Y. R2 Brooklyn, N.Y. R2 Brooklyn, N.Y. R2 Brooklyn, N.Y. R2	.095	1-%	Warren, O. V4 Warren, O. V4	.120	1.00D	Warren, O. V4 Warren, O. V4
.065148	Z1/8	Brooklyn, N.Y. R2	.095	1 ₁₈	Warren, O. V4	.120	1 ₁₆	Warren, O. V4

(Code number following mill point indicates producing company, key on page 38)							
Cound-	Mill Point, Producer Warren,O. V4	Hot-Rolled Wall Thickness (inches) (Mill Point, Producer Warren,O. V4 Varren,O.	CONTINUED FROM PRECEDING PAGE Wall Dimensions (inches) Mill Point, Produce			
Square	Detroit S14 Farreil, Pa. B9 Piqua, O. A10 OilCity, Pa. J5 Warren, O. V4 LosAngeles P2 OilCity, Pa. J5 Warren, O. V4 Warren, O. V4	083 1½ 083 1½ 083 1½ 083 1½ 083 1½ 083 1½ 083 1½ 083 1½ 083 2½ 083 2½ 095 1 09	Warren, O. V4	.109 1 ½ Warren, O. V4 .109 2 Warren, O. V4 .109 2-3 ½ OilCity, Pa. Jt .109 2 ½ Warren, O. V4 .120 1 ½ Warren, O. V4 .120 1 ½ Warren, O. V4 .120 1 ½ Warren, O. V4 .120 2 Warren, O. V4 .120 2 Warren, O. V4 .120 2 Warren, O. V4 .134 1 ½ Warren, O. V4 .134 1 ½ Warren, O. V4 .134 1 ½ Warren, O. V4 .134 2 Warren, O. V4 2 Warren,			
.028-260	3 ½ x 4 Detroit S14 sq. in. Piqua, O. A10 Warren, O. V 4 Warren, O. V 5 W	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Warren, O. V4	109			
Round- 0.95-1½ 1%-7 1.09-2.871 2-14.375 1.34-280 1½-6% 1.34-388 2%-14 1.54-436 2% 1.56-52 2% 1.56 2% 1.65 2% 1.80 2% 1.80 3% 1.87-636 4 1.87-636 4 1.87-636 4	Shelby, O. 02 Allenport, Pa. Pa. Milwaukee G3 Ambridge, Pa. N2 Youngstown Y1 Aliquippa, Pa. J5 Aliquippa, Pa. J5 Aliquippa, Pa. J5 Youngstown Y1 Youngstown Y1 Youngstown Y1 Youngstown Y1 Youngstown Y1	187-7105 187-7505½ 187-7505½ 187-7505½ 1882%-6% 2032%-6% 218-8642%-6% 218-8647% 218-8647% 218-8758% 228-8642%-6% 218-8758% 228-8% 2282%-8% 2282%-8% 2282%-8% 2282%-8%	Youngstown Y1 Youngstown Y1 Youngstown Y1 Aliquippa, Pa. J5 Aliquippa, Pa. J5 Youngstown Y1 Youngstown Y1 Youngstown Y1 Youngstown Y1 Aliquippa, Pa. J5 Aliquippa, Pa. J5 Aliquippa, Pa. J5 Aliquippa, Pa. J5	.2508759% Youngstown Y25087510% Youngstown Y2812%-10% Allquippa,Pa. Ji .3132%-12% Allquippa,Pa. Ji .3752%-14 Allquippa,Pa. Ji .5002%-14 Allquippa,Pa. Ji .500 and hvr3-10% Canton,O. T7 .5633%-14 Allquippa,Pa. Ji .6254-14 Allquippa,Pa. Ji .6255,2-14 Allquippa,Pa. Ji .8757%-14 Allquippa,Pa. Ji .8757%-14 Allquippa,Pa. Ji			

(Code number following mill point indicates producing company, key on page 38

O Round-Welded, Cold-Rolled

Wali 0	Outside		Wall	Outside	•	Wall	Outside	
Thickness Dir	mensions	Point, Producer	Thickness (inches)	Dimensions (inches)	Mill Point, Producer	Thickness (inches)	Dimensions	Mill Point Braducos
.010083	065-1 Sp	ringfield, O. A2	035	9.8%	Warren, O. V4	.049065.	(inches) 	Mill Point, Producer Struthers, O. Y1
.025125	$\frac{1}{2} - \frac{2}{2}$	Orwell, O. B9 Farrell, Pa. B9	.035	2½	Warren, O. V4 Warren, O. V4	.049083.	1 187	Struthers, O. Y1 Struthers, O. Y1
		drian, Mich. S2 Warren, O. V4	,035	2%	Warren, O. V4 Warren, O. V4	.049083	1.508	Struthers, O. Y1 Struthers, O. Y1
.028	665	Warren, O. V4	.035065	500	Struthers, O. Y1	.049095	1.187 1.508 3.00	Struthers, O. Y1
.028	है 4	Warren, O. V4 Warren, O. V4 Warren, O. V4	.035065	625	Struthers, O. Y1 Struthers, O. Y1	.049095	2.00	Struthers, O. Y1 Struthers, O. Y1
.028	Vs ∤§-	Warren, O. V4 Warren, O. V4	.035083		Struthers, O. Y1 Struthers, O. Y1	.049095	2.00 2.197	Struthers.O. Y1
.028		Warren, O. V4 Warren, O. V4	.035083		Struthers, O. Y1			Brooklyn, N.Y. R2 Cleveland R2
.0281	16	Warren, O. V4 Warren, O. V4	.035083	1 14	Struthers, O. Y1 Wheatland, Pa. W9	.049120.	21/2	Ferndale, Mich. R2 Brooklyn, N.Y. R2
028 1 028 1 029 1	- 78 - 3 2	Warren, O. V4 Warren, O. V4	.035095 .035095	1%	Wheatland, Pa. W9 Wheatland, Pa. W9 Wheatland, Pa. W9	.049120. .049120. .049120. .049120.	$2\frac{1}{2}$	Cleveland R2 Ferndale, Mich. R2
.028	16	Warren, O. V4	. 035 120	11/6	Wheatland, Pa. W9 Brooklyn, N.Y. R2			Brooklyn, N.Y. R2 Cleveland R2
.028	1/4	Warren, O. V4 Warren, O. V4	035 120	114	Cleveland R2 Ferndale, Mich. R2	.049120. .049120. .049120. .049120.	25/8	Ferndale, Mich. R2 Brooklyn, N.Y. R2
.0281	335	Warren, O. V4 Warren, O. V4	.035120 .035120	1%	Brooklyn, N. Y. R2 Cleveland R2	.049120.	23/4	Cleveland R2
.0281	.400	Warren, O. V4 Warren, O. V4	. 035 120	7 0%	Ferndale, Mich. R2	.049120. .049120. .049120.	27/8	Ferndale, Mich. R2 Brooklyn, N.Y. R2
.0281	.555	Warren, O. V4	.035120 .035120 .035120	1%	Brooklyn, N.Y. R2 Cleveland R2	.049120.	3	Cleveland R2 Brooklyn, N.Y. R2
.028	16 %-1% Eva	Warren, O. V4 anston, Ill. M15	.035120	13/4	Ferndale, Mich. R2 Brooklyn, N.Y. R2	.049120	3	Cleveland R2 Brooklyn, N.Y. R2
028 1 028 3 028 3 028 4 028 4 028 4 028 7 028-049 5 028-049 4 028-049 7 028-049 7	½-1¾ √2-3 S	OilCity,Pa. J5 Sharon.Pa. S21	025 120	1 77	Cleveland R2 Ferndale, Mich. R2	.049120049120049120049120049120049120049120049120049120049120049120049120	31/8	Cleveland R2 Brooklyn, N.Y. R2
.028	½-4 ½-54	Toledo, O. T8 Detroit B13	.035120	2	Brooklyn, N.Y. R2	.049120.	31/4	Cleveland R2 Brooklyn, N.Y. R2
.0280493	% Bro	oklyn, N.Y. R2	.035120	2 2	Cleveland R2 Ferndale, Mich. R2	.049120	3%	Cleveland R2
.028049	Whe	ndale, Mich. R2 atland, Pa. W9	.035120 .035120 .035120 .035120 .035120	2½ 2½	Brooklyn, N.Y. R2 Cleveland R2	.049120	3½	Brooklyn, N.Y. R2 Cleveland R2
.0280655	% Bro	oklyn, N.Y. R2 ndale, Mich. R2	.035120	21/8	Ferndale, Mich. R2 Brooklyn, N.Y. R2	.049120	35%	Brooklyn, N.Y. R2 Cleveland R2
.028065	Whe	atland,Pa. W9 Cleveland R2	.035120	21/4	Cleveland R2 Ferndale, Mich. R2	.049120 .049120 .049120 .049120	3 3/4	Brooklyn, N.Y. R2 Cleveland R2
.0280833 .0280834	%-3	Piqua, O. A10 Cleveland R2	.035134	34-3	LosAngeles P2	.049120	3%	Brooklyn, N.Y. R2
.0280833	Feri	ndale, Mich. R2	.035134	2 21/8	Wheatland, Pa. W9 Wheatland, Pa. W9			Cleveland R2 Brooklyn, N.Y. R2
.028083	% Vide	atland,Pa. W9 ndale,Mich. R2	.035120 .035120 .035120 .035134 .035134 .035134 .042 .042 .042 .042 .042 .042 .042 .042	$2\frac{1}{4}$	Wheatland, Pa. W9 Sharon, Pa. S21	.049120 .049134 .049134	23%	Cleveland R2 Wheatland, Pa. W9
.028083	% Wne Feri	atland, Pa. W9 ndale, Mich. R2	.042	2%	Warren.O. V4	.049134	2½	Wheatland, Pa. W9 Wheatland, Pa. W9
.0280835	1/6 ' Ferr	ndale, Mich. R2 oklyn.N.Y. R2	.042	215	Warren, O. V4 Warren, O. V4 Warren, O. V4	.049134	2 1/8	Wheatland, Pa. W9 Wheatland, Pa. W9
.028095	%s	oklyn, N.Y. R2 Cleveland R2 oklyn, N.Y. R2	.042	3	Warren, O. V4	.058		Sharon, Pa. S21
. 028 095	4	Cleveland R2 oklyn, N.Y. R2	.042	1.125	Warren, O. V4 Struthers, O. Y1	.065	% -2	Evanston, Ill. M15 Warren, O. V4
.028095	/s	Cleveland R2			Struthers, O. Y1 Struthers, O. Y1	.065	1/2-3	Sharon, Pa. S21 Oil City, Pa. J5
I 028 095 T	16 Whe	atland,Pa. W9 atland,Pa. W9	.042083 .042083 .042095	1.375 1.738	Struthers, O. Y1 Struthers, O. Y1	.065 .065 .065 .065	5%	Warren, O. V4
.028095	.¼ Whe	atland, Pa. W9 atland, Pa. W9	.042095	1.500	Struthers, O. Y1 Evanston, Ill. M15	.065 .065 .065		Warren, O. V4 Warren, O. V4
.0281203	% ~3 . Bro	Shelby, O. O2 oklyn, N.Y. R2	.049 .049 .049 .049 .049	1/2	Warren.O. V4	.065	· · · · · · · ½	Warren, O. V4 Warren, O. V4
		Cleveland R2 oklyn, N.Y. R2	.049	½-4	Sharon,Pa. S21 OilCity,Pa. J5	.065	18	Warren, O. V4 Warren, O. V4
.028120	1/8 1/4 Bro	Cleveland R2 oklyn,N.Y. R2	.049		Warren, O. V4 Warren, O. V4	.065	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Warren, O. V4 Warren, O. V4
.025120 1	1/4 1/4	Cleveland R2	.049	····· !\$	Warren, O. V4 Warren, O. V4	.065	1%	Warren.O. V4
.0281201	% Bro	oklyn, N.Y. R2	.049	% 1 5	Warren, O. V4 Warren, O. V4	.065	133	Warren,O. V4 Warren,O. V4 Warren,O. V4
.0281201	% Ferr	Cleveland R2	.049	1	Warren, O. V4 Warren, O. V4	.065	11/4	Warren.O. V4
.032	%-3 Eva	Sharon, Pa. S21 anston, Ill. M15	049 049 049 049 049 049 049 049	12	Warren, O. V4 Warren, O. V4	.065	1.335	Warren, O. V4 Warren, O. V4
.035	/2 6-21/4	Warren, O. V4 OilCity.Pa. J5	.049	182	Warren, O. V4 Warren, O. V4	.065	1%	Warren, O. V4 Warren, O. V4
025-120 1 028-120 1 028-120 1 028-120 1 023-120 1 023-120 1 032 1 035 9 035 9 035 1 035 1	½-3 . S	OilCity,Pa. J5 haron,Pa. S21 Warren,O. V4	.049 .049 .049 .049 .049 .049 .049 .049	132	Warren, O. V4	.065		Warren, O. V4 Warren, O. V4 Warren, O. V4
.035	665	Warren, O. V4	.049	15	Warren, O. V4 Warren, Q. V4	.065	1.555 1.%	Warren, O. V4 Warren, O. V4
.035	44	Warren,O. V4 Warren,O. V4 Warren,O. V4	.049	1,335	Warren, O. V4 Warren, O. V4	.065	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Warren, O. V4 Warren, O. V4
		Warren.O. V4	.049	1% 1.400	Warren, O. V4 Warren, O. V4	.065	111	Warren, O. V4 Warren, O. V4
.035	18	Warren, O. V4 Warren, O. V4	.049	1½	Warren, O. V4 Warren, O. V4	,065	1.786	Warren, O. V4
.035	32 1/8	Warren, O. V4 Warren, O. V4	.049 .049 .049	156	Warren, O. V4 Warren, O. V4	.065	1.9	Warren, O. V4 Warren, O. V4 Warren, O. V4
035 1 035 1 035 1 035 1 035 1 035 1 035 1	32	Warren, O. V4 Warren, O. V4	.049	133	Warren, O. V4 Warren, O. V4	.065 .065 .065 .065	· · · · · · · · · · · · · · · · · · ·	Warren, O. V4 Warren, O. V4 Warren, O. V4
.035	72	Warren, O. V4	.049	1%	Warren, O. V4	.065	2½ 2½	Warren, O. V4 Warren, O. V4
.0351	74. 16	Warren, O. V4 Warren, O. V4	.049	1.786	Warren, O. V4 Warren, O. V4	.065	$2\frac{3}{16}$	Warren, O. V4 Warren, O. V4
.0351	.335	Warren, O. V4 Warren, O. V4	.049	1.9 1}8	Warren, O. V4 Warren, O. V4	.065		Warren, O. V4 Warren, O. V4
.035	% 400	Warren, O. V4 Warren, O. V4	.049	2	Warren, O. V4 Warren, O. V4	.065	2 %	Warren, O. V4
		Warren, O. V4 Warren, O. V4 Warren, O. V4	.049	2 1/8	Warren, O. V4 Warren, O. V4	.065 .065	$2\frac{7}{16}$	Warren, O. V4 Warren, O. V4 Warren, O. V4
.035	18	Warren, O. V4 Warren, O. V4	049 .049 .049 .049 .049 .049 .049 .049 .049 .049 .049	2.205	Warren, O. V4 Warren, O. V4			warren, O. V4
.035	.670	Warren, O. V4 Warren, O. V4	.049	2.343	Warren, O. V4 Warren, O. V4	.065	2%	Warren O. V4
.0351	16 3/4 79.6	Warren, O. V4	.049	21/2	Warren, O. V4	.065 .065 .065	215	Warren, O. V4 Warren, O. V4 Warren, O. V4
.035	% %	Warren, O. V4 Warren, O. V4 Warren, O. V4	.049	25%	Warren, O. V4 Warren, O. V4			Warren, O. V4 Warren, O. V4
035	.9	Warren, O. V4	.049	2%	Warren, O. V4 Warren, O. V4	.065	3 1/8	Warren, O. V4
.035	18	Warren, O. V4 Warren, O. V4	.049	2.905	Warren, O. V4 Warren, O. V4	065	3 %	Warren, O. V4 Warren, O. V4 Struthers, O. V1
.035 2	1/8	Warren, O. V4 Warren, O. V4	.049	$2^{\frac{3}{3}\frac{9}{2}}$ 3	Warren, O. V4 Warren, O. V4	.065095	2.250	Brooklyn, N. Y. RZ
.035	.205 ¼	Warren, O. V4 Warren, O. V4	.049 .049	31/6	Warren, O. V4 Warren, O. V4	.065120	4 ½	Cleveland R2 Cleveland R2
.035 2	.343	Warren, O. V4	.049	31/4	Warren, O. V4	.072	½-3	Sharon,Pa. S21

(Code number following mill point indicates producing company, key on page 38)

C	Round-	-Welded	Cold-Re	alled
	Round-	- vv elucu	. Colu-Ri	Jijeu.

CONTINUED FROM PRECEDING PAGE

Wall	Outside		Wall	Outside	1	Wall	Outside	
(Thickness (inches)	Dimensions (inches)	Mill Point, Producer	Thickness (inches)	Dimensions (inches)	Mill Point, Producer	Thickness (inches)	Dimensions (inches)	Mill Point, Producer
		Evanston, Ill. M15	.095		Warren, O. V4			Warren, O. V4
.083	1/8	Warren, O. V4	.095	111	Warren, O. V4	.120	118	Warren, O. V4
.083	%-3	Sharon, Pa. S21 Warren, O. V4	.095	1%	Warren, O. V4	.120	$\dots 1_{\frac{3}{3}}$	Warren, O. V4 Warren, O. V4
.083		Warren, O. V4	.095	1 %	Warren, O. V4 Warren, O. V4	120	· · · · · · · · /8 · · · · · 1 5	Warren, O. V4
.083	3/4	Warren, O. V4	.095	1,9	Warren, O. V4 Warren, O. V4	.120	13	Warren, O. V4
.083	¾4	OilCity,Pa. J5 Warren,O. V4	.095	118	Warren, O. V4 Warren, O. V4	.120	17	Warren, O. V4 Warren, O. V4
.083	15	Warren, O. V4	.095	2-12	Warren, O. V4	.120	11/4-3	Sharon, Pa. S21
.083	<u>1</u> °	Warren, O. V4	.095	21/8	Warren, O. V4	.120	15	Warren, O. V4
.083	1.3	Warren, O. V4 Warren, O. V4	095	2 205	Warren, O. V4 Warren, O. V4	.120	1 255	Warren, O. V4 Warren, O. V4
.083	1 1/8	Warren, O. V4	.095 .095 .095 .095 .095 .095 .095	21/4	Warren, O. V4	120	1%	Warren, O. V4
083	1.5.	Warren, O. V4	.095	2.343	Warren, O. V4 Warren, O. V4	.120	1.400	Warren, O. V4 Warren, O. V4
083	12	Warren, O. V4 Warren, O. V4	.095	21/2	Warren, O. V4	.120	11/2	OilCity, Pa. J5
.083	11/4	Warren, O. V4	.095	22	Warren, O. V4	.120	1.555	Warren, O. V4
.083	. , 1 16	Warren, O. V4	.095	25%	Warren, O. V4 Warren, O. V4	.120	15/	Warren, O. V4 Warren, O. V4
.083	1.355	Warren, O. V4 Warren, O. V4	.095	$2\frac{74}{8}$	Warren, O. V4	.120	1.670	Warren, O. V4
.083	1%	Warren, O. V4	.095	2.905	Warren.O. V4	.120	1 1 1	Warren, O. V4
.083	7 . 4 0 0	Warren, O. V4 Warren, O. V4	.095	231	Warren, O. V4 Warren, O. V4	.120	1 786	Warren, O. V4 Warren, O. V4
.083 .083 .083	1.555	Warren, O. V4	.095 .095 .095 .095 .095 .095 .095 .095	3	Warren, O. V4	.120	1%	Warren, O. V4
.083	118	Warren, O. V4	.095 .095 .095 .095	31	Warren, O. V4	.120	1.9	Warren, O. V4 Warren, O. V4
.083	1%	Warren, O. V4 Warren, O. V4	.095	3½	Warren, O. V4 Warren, O. V4	.120	· · · · · · · · · · · · · · · · · · ·	Warren.O. V4
.083	111	Warren, O. V4	.095	3 %	Warren, O. V4	.120	218	Warren, O. V4
,083	1%	Warren, O. V4	109	3/4 ←3	Sharon,Pa. S21	,120	21/8	Warren, O. V4 Warren, O. V4
.083	1.786	Warren, O. V4 Warren, O. V4	.109	·····‡8	Warren, O. V4 Warren, O. V4	.120	2.205	Warren, O. V4
.083	1.9	Warren, O. V4	.109 .109 .109	1-4	Warren, O. V4 OilCity, Pa. J5	.120	21/4	Warren, O. V4
083	116	Warren, O. V4	.109 .109 .109 .109	11/6	Warren, O. V4	.120	2.343	Warren, O. V4 Warren, O. V4
.083 .083 .083	21	Warren, O. V4 Warren, O. V4	.109	14	Warren, O. V4 Warren, O. V4	.120	21/2	Warren, O. V4
.083	21/8	Warren.O. V4	.109	1 5 2	Warren, O. V4	.120	218	Warren, O. V4
.083	23	Warren, O. V4	.109	18	Warren, O. V4 Warren, O. V4	.120	2% 2%	Warren, O. V4 Warren, O. V4
.083	21/4	Warren, O. V4 Warren, O. V4	.109	137	Warren.O. V4	.120	2 1/8	Warren, O. V4
.083	2.343	Warren.O. V4	.109 .109 .109 .109 .109	1 fg	Warren, O. V4	.120 .120 .120	2.905	Warren, O. V4 Warren, O. V4
		Warren, O. V4 Warren, O. V4	.109	1 355	Warren, O. V4 Warren, O. V4	.120	2#	Warren, O. V4
.083	272	Warren, O. V4	.109	1%	Warren, O. V4	.120	3	Warren, O. V4
.083	25%	Warren, O. V4	.109	1.400	Warren, O. V4	.120	31	Warren, O. V4 Warren, O. V4
.083 .083 .083 .083	276	Warren, O. V4 Warren, O. V4	.109 .109 .109 .109	1 555	Warren, O. V4 Warren, O. V4	.120	3 1/4	Warren, O. V4
.083	2.905	Warren, O. V4	.109	136	Warren.O. V4	.120	3%	Warren, O. V4
.083	215	Warren, O. V4	.109	1%	Warren, O. V4			Sharon, Pa. S21 Warren, O. V4
.083	33	Warren, O. V4 Warren, O. V4	.109 .109 .109	134	Warren, O. V4 Warren, O. V4	134	1.670	Warren, O. V4
.083	318	Warren.O. V4	.1.09	1%	Warren, O. V4	.134	111	Warren, O. V4
		Warren, O. V4 Warren, O. V4	.109	1.786	Warren, O. V4 Warren, O. V4	.134	1%	Warren, O. V4 Warren, O. V4
.083	3%	Warren, O. V4	.109	1.9	Warren.O. V4	.134	1%	Warren, O. V4
.095 min	1/2-5/8	Monaca, Pa. P9	.109	115	Warren, O. V4	.134	1.9	Warren, O. V4
.095	· · · · • • • • • • • • • • • • • • • •	Warren, O. V4 Warren, O. V4	.109	2 2.)_	Warren, O. V4 Warren, O. V4	134	118	Warren, O. V4 Warren, O. V4
.095	34-3	Sharon, Pa. S21	109 1109 1109 1109 1109 1109 1109 1109	21/8	Warren, O. V4	.134	2-4	OilCity,Pa. J5
.095	7/8	Warren, O. V4 Evanston, Ill. M15	.109	23	Warren, O. V4	.134	21	Warren, O. V4 Warren, O. V4
.095 .095 .095	15	Warren, O. V4	.109	2.205	Warren, O. V4 Warren, O. V4	.134	23	Warren, O. V4
.095	1	Warren, O. V4 OilCity, Pa. J5	.109	2.343	Warren, O. V4	.134	2,205	Warren, O. V4
095	1_4	OilCity, Pa. J5	.109	2%	Warren, O. V4 Warren, O. V4	.134	2 343	Warren, O. V4 Warren, O. V4
.095	13	Warren, O. V4 Warren, O. V4	.109	$2\frac{7}{1}$	Warren.O. V4	.134	2%	Warren.O. V4
.095	11%	Warren.O. V4	.109	2%	Warren, O. V4	134 .134 .134 .134 .134 .134 .134 .134 .134 .134 .134 .134 .134 .134	2½	Warren, O. V4
		Warren, O. V4 Warren, O. V4	.109	27/2	Warren, O. V4 Warren, O. V4	.134	2%	Warren, O. V4 Warren, O. V4
.095 .095 .095	1 37	Warren.O. V4	.109	2.905	Warren.O. V4	134 .134 .134 .134 .134 .134 .134 .134 .134 .134	2 1/4	Warren, O. V4
.095	11/4	Warren, O. V4 Warren, O. V4	.109	235	Warren, O. V4 Warren, O. V4	.134	2 905	Warren, O. V4 Warren, O. V4
.095	1.335	Warren, O. V4 Warren, O. V4	.109	3	Warren, O. V4	.134	215	Warren, O. V4
.095 .095 .095 .095	1.355	Warren, O. V4	.109 .109 .109 .109	318	Warren, O. V4	.134	233	Warren, O. V4
.095	1%	Warren, O. V4 Warren, O. V4	.109	31/	Warren, O. V4 Warren, O. V4	134	3.1	Warren, O. V4 Warren, O. V4
.095 .095	1½	Warren.O. V4	.109	3%	Warren, O. V4	.134	31/8	Warren, O. V4
.095	1.555	Warren, O. V4 Warren, O. V4	.109 .109 .109134 .109156	5/8-3/4	Monaca, Pa. P9	.134	31/4	Warren, O. V4
.095	1%	Warren, O. V4 Warren, O. V4	.109156		Monaca,Pa. P9 Monaca,Pa. P9	.134	1½-2½	Warren, O. V4 Monaca, Pa. P9
	7 7 78	Training, VI	,,	76 - 72			-74 -75	

Rectangular-Welded, Cold-Rolled

.010065 4x% to 4x% Springfield,O. A2	.0351x1%Warren,O. V4	.050
	.035	.050%x1½Warren,O. V4
.029083 %x% to 9 sq. in. Piqua,O. A10	.035Warren, O. V4	.050%x11/2Warren,O. V4
.035	.035	.050%x1%Warren,O. V4
.035	.035	.050
.035 %x1	.035	.050
.035 % x2 % Warren, O. V4	.035	.0501x1%Warren,O. V4
.035 ½ x % to 1½ x2 . OilCity, Pa. J5	.035134¼x¾ to ¾x2 .LosAngeles P2	.050
.035	.049 ½x% to 1½x3¼ OilCity,Pa. J5	.050
.035		.050
.035	.050	.050
.035	.050 % x%	.050
.035 %x1½ Warren.O. V4	.050%x1Warren,O. V4	.050 $1\frac{7}{32}$ x1 $\frac{21}{32}$ Warren, O. V4
.035	.050 % x2% Warren, O. V4	.050
.035	.050	.050
.035	.050	.050
.035% x1 1/8 Warren, O. V4	.050	.065 %x %
035%x1 %	.050	
.035	.050 % x1½ Warren, O. V4	.065
.035	.050	.065 %x2% Warren,O. V4

anuary 15, 1951

Rectangular-Welded Cold-Rolled	CONTINUED FROM PRECEDING PAGE
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	ite dealing and		304, 4	old Itolic			
Wall	Outside	Wall	Outside		Wall	Outside	
Thickness	Dimensions	Thickness	Dimensions		Thickness	Dimensions	
(inches)	(inches) Mill Point,	Producer (inches)	(inches)	Mill Point, Produc	er (inches)	(inches)	Mill Point, Producer
.065	1/4 x 5/4 to 2 1/4 x 3 3/4 OilCit	v.Pa. J5 053	1x1¼				Warren.O. V4
				Warren.O.	74 109	1x2	Warren.O. V4
.065		en, O. V4 .083					Warren.O. V4
				Warren,O.			Warren,O. V4
	½x1½Warre				74 .109	1½x2	Warren, O. V4
	%x1½Warre				74 .109	$\dots \dots 1_{\frac{7}{2}} \times 1_{\frac{9}{2}} \dots$	Warren,O. V4
				Warren,O.	74 .109	1½x2	Warren, O. V4
				Warren,O.			Warren,O. V4
	%x1%			Warren,O.			Warren,O. V4
	%x1%Warre						x3% OilCity,Pa. J5 Warren,O. V4
	1x1%Warre						
	1x1 ¹ / ₄					1x1½	Warren,O. V4
	1x1%	090	3 X1 %				Warren,O. V4
	1x1½Warre	680					Warren,O. V4
	1x2	en.O. V4	7 ₅ X1 7 ₈	Warren.O.			Warren, O. V4
	1x2¼Warre	en, U. V4					Warren,O. V4
	1x2½	en.O. V4		Warren,O.	74 120	1 ½ x2	Warren,O. V4
	1 1 x 2				74 .120	1½x3	Warren,O. V4
.065	137x131/2			Warren, O.	74 .120	1% x3	Warren.O. V4
	1½x2°°	- 0 374 .090		Warren,O.			x3% OilCity,Pa. J5
065	1% x3	090		Warren,O.		2x3	Warren,O. V4
	2x3	000		Warren,O.		1x2	Warren.O. V4
	%x1	660.		Warren.O.	134	1x2½	Warren,O. V4
	½x1	660.		2½x3¾ OilCity,Pa.	7- 104		Warren, O. V4
.083		en.O. V4	1 ½ x1% to	Warren.O.	TA LOT		Warren,O. V4
	½x1%Warre	en, O. V4				$1_{39}^{7} \times 1_{32}^{21}$	Warren, O. V4
	½x1½Warre	B, U. V4 005		Warren.O.	154	1½ x2	Warren,O. V4
	%x1½ Warre	en U. V4 005		Warren.O.	** 1 *TO# * * * * * * * * * * * * * * * * * * *	1½X3	Warren.O. V4
	%x% to 2½x3% OilCity		7/ w11/	Warren,O.	74 194		x3% OilCity,Pa, J5
	34 x1 % Warre		7 ₈ X1 7 ₈	Warren,O.	74 134		Warren, O. V4
	%x1%			Warren.O.			& Tubes Division
	%x1%Warre			Warren.O.			at Brooklyn, N.Y.,
	1x1%			Warren.O.		Mich., and Clev	
	78 ************************************						

☐ Square—Welded, Cold-Rolled

0.10-065 200-625 0.25-083 \(\frac{1}{2} - 2 \) 0.28 \(\frac{1}{2} - 2 \) 0.29 \(\frac{1}{2} - 2 \) 0.25 \(\frac{1}{2} - 2 \) 0.35 .	Springfield, O. A2 Farrell, Pa. B9 Warren, O. V4 Warren, O. V4 Piqua, O. A10 Warren, O. V4 OilCity, Pa. J5 Warren, O. V4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Warren, O. V4	.095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 1 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 .095 2 2 .095 2 2 1	Warren, O. V4 OilCity, Pa. J5 Warren, O. V4 Varren, O. V4 Varren, O. V4 Warren, O. V4
.050	Warren, O. V4	.0831 1/4	Warren, O. V4	.1342–3 1/8	OilCity,Pa. J5 Warren,O. V4 & Tubes Division t Brooklyn, N. Y.,

SEAMLESS, COLD-FINISHED.

O Round

ALL		Wallington, N.J. T12 Philadelphia I-6
.016120	1/8-1 1/2	Adrian, Mich. S2 Carnegie, Pa. S22
		t Carnegie, Pa. S22
	over 11/4-2	SouthLyon, Mich. M7 4 Carnegie, Pa. S22 Los Angeles P2
.023095	2%-3	Carnegie, Pa. S22 Milwaukee G3

.028-11/438-7	Shelby, O. O2
.03106531/8-4	Carnegie,Pa. S22
.065-11/2%-13	Allenport, Pa. P7
.125 max008625	Morristown, Pa. S23
.500 and heavier 11/2-91/2	Canton, O. T7

☐ Square

.020134¼-1½	LosAngeles P2
.035125	Carnegie, Pa. S22
.035250	SouthLyon, Mich. M7
.035250½-3½	Milwaukee G3
.125 max500 max.	Norristown, Pa. S23

□ Rectangular

.020134¼x¾	
to % x2	LosAngeles P2:
.035-,125 ¹ / ₄ x ³ / ₈	
to 1x2	Carnegie, Pa. S22
.035250½x¾	
to 2x4	
.0352503 in, major	dimension by any
minor dime	ension but square
area cannot	exceed 21/2 in.
Minimum m	inor dimension, %
in. So	outhLyon, Mich. M7
.125 max¼x¾	
max ?	Vorristown Pa S23

Field Grade

	HT.	п	EM	61	2115

Elec.	Max.Width	
Sht.	Max.Length	
	(inches)	Mill Point, Producer
20	.36x120	Ind. Harbor, Ind. I-2
	.40x120	Mansfield, O. E6
	.36x120	Ind. Harbor, Ind. 1-2
	.40x120	Mansfield, O. E
22	.36x120	Ind. Harbor, Ind. 1-2
	.40x120	Mansfield, O. E
22	.42x120	Newport, Ky. No
22	.48x124	BeechBottom W10
23	.36x120	Ind. Harbor, Ind. 1-2
23	.40x120	Mansfield, O. E
23	.42x120	Newport, Ky. Nº
23	.48x124	BeechBottom W10
24	.36x120	Ind. Harbor, Ind. 1-2
24	.40x120	Mansfield, O. E
24	.42x120	Newport, Ky. Nº
24	.48x124	BeechBottom W10
25	.38x124	BeechBottom W10
25	.40x120	Mansfield, O. E
25	.42x120	Newport, Ky. Nº
26	.38x124	BeechBottom W10
26	.40x120	Mansfield, O. E
26	.42x120	Newport, Ky. Nº
	.42x120	Newport, Ky. Nº
	.42x120	Newport, Ky. No
	.40x120	Newport, Ky. No
30	.40x120	Newport, Ky. N

		COILS
Elec.	Max.	
Sht.	Width	
Ga.	(in.)	Mill Point, Producer
22	10	Warren, O. R2
22	36	IndianaHarbor, Ind. I-2
23	10	Warren, O. R2
23	36	IndianaHarbor, Ind. 1-2
24	10	Warren, O. R2
24	36	IndianaHarbor, Ind. I-2
25		Warren, O. R2
25	36	IndianaHarbor, Ind. I-2
26	10	Warren, O. R2
26	36	IndianaHarbor, Ind. I-2
27	10	Warren, O. R2
28	10	Warren, O. R2
29	. 10	Warren, O. R2

Armature Grade

	-CUT LENGTHS
Elec. Max.Width	,
Sht. Max.Length	
Ga. (inches)	Mill Point, Producer
2036x120	Ind. Harbor, Ind. 1-2
2040x120	Mansfield, O. E6
2136x120	Ind. Harbor, Ind. I-2
2140x120	Mansfield, O. E6
2235 % x124	BeechBottom W10
2236x120	Ind. Harbor, Ind. I-2
2236x	Warren, O. R2
2240x120	Mansfield, O. E6
2240x120	Niles, O. N12
2242x120	Newport, Ky. N9
2335 % x124	BeechBottom W10
2336x120	Ind. Harbor, Ind. I-2
2336x124	Zanesville, O. A 10
2336x	Warren, O. R2
2340x120	Mansfield, O. E6 Niles, O. N12
2340x120 2342x120	
2435 % x124	Newport, Ky. N9 BeechBottom W10
2436x120	Ind. Harbor, Ind. I-2
2436x124	Zanesville, O. A10
2436x	Warren, O. R2
2440x120	Mansfield, O. E6
2440x120	Niles.O. N12
2442x120	Newport, Ky. N9
2534 ½ x124	BeechBottom W10
2536x120	Ind. Harbor, Ind. I-2
2536x124	Zanesville, O. A10
2536x	Warren, O. R2
2540x120	Mansfield, O. E6
2540x120	Niles, O. N12
2542x120	Newport, Ky. N9
2634 ½ x124	BeechBottom W10
2636x120	Ind. Harbor, Ind. I-2
2636x124 2636x	Zanesville, O. A10
2640x120	Warren, O. R2 Mansfield, O. E6
2640x120	Niles, O. N12
2642x120	Newport, Ky. N9
2736x124	Zanesville, O. A10
2736x	Warren O R2
2740x120	Warren, O. R2 Niles, O. N12
2742x120	Newport, Ky. N9
2836x124	Zanesville, O. A10
2836x	Warren, O. R2
28 40x120	Niles, O. N12
2842x120	Newport, Ky. N9
2936x124	Zanesville, O. A10
2936x	Warren, O. R2
2940x120	Newport, Ky. N9
2940x120	Niles, O. N12
3040x120	Newport, Ky. N9

Armature Grade

		-COILS
Elec.	Max.	
	Width	
Ga.	(in.)	Mill Point, Producer
22	10	Warren,O. R2
22		IndianaHarbor, Ind. I-2
23		Warren,O. R2
23		IndianaHarbor, Ind. I-2
23		Zanesville, O. A10
24		Warren.O. R2
24		IndianaHarbor, Ind. I-2
24		Zanesville, O. A10
25		Warren.O. R2
25		IndianaHarbor, Ind. 1-2
25		Zanesville, O. A10
26		Warren.O. R2
26		IndianaHarbor, Ind. I-2
26		Zanesville, O. A10
27		Warren, O. R2
27		Zanesville, O. A10
28		Warren, O. R2
28		Zanesville, O. A10
29		Warren, O. R2
29		Zanesville, O. A10
	,,,,,	

Electrical Grade

	-CUT LENGTHS
Elec.	Max.Width
Ga.	Max.Length (inches) Mill Point, Producer .36x144 Parkersburg, W.Va. F4 .40x120 Mansfield, O. E6 .35\% x124 BeechBottom W10 .36x144 Parkersburg, W.Va. F4 .36x144 Parkersburg, W.Va. F4 .36x144 Vandergrift, Pa. U5 .36x Warren, O. R2 .40x120 Mansfield, O. E6 .40x120 Miles, O. N12 .36x124 BeechBottom W10 .36x144 Parkersburg, W.Va. F4 .36x144 Vandergrift, Pa. U5 .36x .40x120 Warren, O. R2 .40x120 .40x120 Warren, O. R2 .40x120 Warren, O. E6 .40x120 .4
20	.36x144 Parkersburg, W.Va. F4
20	.40x120 Mansfield,O. E6
21	.36X144 Parkersburg, W. va. F4
22	353/ v124 ReechRottom W10
22	.36x144 Parkersburg.W.Va. F4
22	.36x144 Vandergrift, Pa. U5
22	.36x Warren, O. R2
22	.40x120 Mansfield, O. E6
22	.40X120 Newport &v No
23	35% x124 BeechBottom W10
23	.36x124 Zanesville, O. A10
23	.36x144 Parkersburg, W. Va. F4
23	.36x144 Vandergrift, Pa, U5
20	A0v120 Mansfield O E6
23	.40x120 Niles.O. N12
23	.42x120 Newport, Ky. N9
21	.35% x124 BeechBottom W10
24	.36x120 Ind Harbor, Ind. I-2
24	36v144 Rrackenridge Pr A4
24	.36x 44 Parkersburg. W. Va. F4
24	.36x144 Vandergrift, Pa. U5
24	.36x Warren,O. R2
24	.40x120 Mansfield.O. E6
24	42x123 Newport, Kv. N9
24	.50x120 Brackenridge, Pa. A4
25	.35% x124 BeechBottom W10
25	.36x120 Ind. Harbor. Ind. 1-2
25	36x144 Parkersburg.W.Va. F4
25	.36x144 Vandergrift, Pa. U5
25	.36x Warren, O. R2
25	.40x120 Mansfield, O. Et
25	.42x120 Newport.Ky. N9
26	.35 % x124 BeechBottom W10
26	.36x120 Ind. Harbor, Ind. 1-2
26	.36X124 Zanesv He.U. A10
26	.36x144 Parkersburg, W. Va. F4
26	.36x144 Vandergrift, Pa. U5
26	.36x Warren, O. RZ
26	40x120 Mansfield, O. E. 6
26	.42x120 Newport, Ky. N9
26	.50x120 Brackenridge, Pa. A4
27	.35 % x124 BeechBottom W10
27	36x124 Zanesville, O. A10
27	.36x144 Parkersburg, W.Va. F4
27	.36x144 Vandergrift,Pa. U5
27	.36x Warren, U. R2
27	42x120 Newport, Kv. N9
28	.34 1/2 x124 BeechBottom W10
28	.36x120 Ind.Harbor, Ind. I-2
28	.36x124 Zanesville, U. A10
28	36x144 Vandergrift.Pa. U5
28	.36x Warren,O. R2
28	.40x120 Niles, O. N12
28	.42X120 Newport, Ky. N9
29.	.36x124 Zanesville,O. A10
29	.36x144 Brackenridge, Pa. A4
29	.36x144 Parkersburg, W. Va. F4
29	.3bX144 Vandergriit,Fa. U5
29	.40x120 Newport, Ky. N9
29	.40x120 Niles, O. N12
29	.50x108 Brackenridge, Pa. A4
30	.36x Warren, O. R2 .40x120

Electrical Grade

Sht.	Max. Width	
	(in.)	Mill Point, Producer
20	36	GraniteCity,Ill. G4
21	36	GraniteCity,Ill. G4
22	10	Warren, O. R2
22		GraniteCity,Ill. G4
22	4.2	Vandergrift, Pa. U5
	10	Warren,O. R2
23	36	GraniteCity,Ill. G4
23	36	Zanesville, O. A10
23	42	Vandergrift,Pa. U5
	10	Warren, O. R2
24	36	GraniteCity,Ill. G4
24	36	Zanesville, O. A10
24	42	Vandergrift, Pa. U5
	10	Warren, O. R2
40	36	GraniteCity,Ill. G4
40	36	Zanesville, O. A10 Vandergrift, Pa. U5
20.,.		
20	10	Warren, O. R2 GraniteCity.Ill. G4
20	36	
	42	Zanesville, O. A10 Vandergrift, Pa. U5
	10	Warren, O. R2
	36	GraniteCity,Ill. G4
27	36	Zanesville, O. A10
27	42	Vandergrift.Pa. U5
28	10	Warren, O. R2
28	36	GraniteCity, Ill. G4
28	36	Zanesville, O. A10
28	42	Vandergrift, Pa. U5
29	10	Warren, O. R2
29	36	GraniteCity,Ill. G4
	36	Zanesville, O. A10
	42	Vandergrift,Pa. U5

Motor Grade

		-CUT LENGTHS
Elec.	Max.W	
	Max.Ler	
Ga.	(inche	
20	.36x144	Parkersburg, W. Va. F4
20	.40x120	Mansfield, O. E6 Parkersburg, W. Va. F4 Mansfield, O. E6
21	.36x144 .40x120	Managold O Eg
22	.35x124	BeechBottom W10
22.	36x144	Parkersburg W. Va F4
22	.36x144	Vandergrift.Pa. U5
22	.36x	Parkersburg, W. Va. F4 Vandergrift, Pa. U5 Warren, O. R2
26	.4UX12U	Mansfield, O. E6 Newport, Ky. N9
22	.42x120	Newport, Ky. N9
	.35x124	BeechBottom W10
20	.36x124	Zanesville, O. A10
23	262144	Vandargrift Do III
23	36x	Parkersburg, W. Va. F4 Vandergrift, Pa. U5 Warren, O. R2
23	.40x120	Mansfield, O. E6
23	.42x120	Newport, Ky. N9
24	.30x124	BeechBottom W10
24	.35x124 .36x124	Mansfield, O. E6 Newport, Ky. N9 BeechBottom W10 Zanesville, O. A10
24	.36x144	Brackenridge, Pa. A4 Parkersburg, W. Va. F4
24	.36x144	Vandergrift, Pa. U5
	.36x	Warren, O. R2
24.	.40x120	Mansfield, O. E6
24	.42x120	Mansfield, O. E6 Newport, Ky. N9
24	.50x120	Brackenridge, Pa. A4
25	.35x124	BeechBottom W10
25	.36x124	Zanesville, O. A10
25	.36×144	Parkersburg, W. Va. F4
25	368	Zanesville, O. A10 Parkersburg, W. Va. F4 Vandergrift, Pa. U5 Warren, O. R2
25	.40x120	Mansfield, O. E6
OF	40-100	Marring and Your MID
26	.35x124	BeechBottom W10
26	.36x124	Zanesville.O. A10
26	.36x144	BeechBottom W10 Zanesville.O. A10 Brackenridge,Pa. A4 Parkersburg,W. Va. F4 Vandergrift,Pa. U5 Warren,O. R2 Mansfeld O. F6
26	26v144	Vandargrift Da 115
26	367	Warren O R2
26	.40x120	Mansfield, O. E6
26	.42x120	Mansfield.O. E6 Newport, Ky. N9
26	.50x120	Brackenridge, Pa. A4
27	.35x124	BeechBottom W10
27	.36x124	Zanesville, O. A10
27	.36X144	Zanesville,O. A10 Parkersburg,W.Va. F4 Vandergrift,Pa. U5 Warren,O. R2
27	.36x	Warren O. R2
Off	40-100	Marrimont IZer MIO
28	.34x124	BeechBottom W10 Zanesville,O. A10 Parkersburg,W.Va. F4 Vandergrift,Pa. U5 Warren O. B2
28	.36x124	Zanesville, O. A10
28	.36x144	Parkersburg, W. Va. F4
28	.36x144	Vandergrift, Pa. U5
200 a a	.000	Warren,O. R2 Newport,Ky. N9
28.,	.42x120 .34x124	ReechBottom W10
20	26 - 194	BeechBottom W10 Zanesville, O. A10
29.	.36x144	Brackenridge, Pa. A4
29.,	.36x144	Brackenridge,Pa. A4 Parkersburg,W.Va. F4 Vandergrift,Pa. U5
29	.36x144	Vandergrift, Pa. U5
29	.36x	Warren, O. R2
29	.40x120	Newport, Ky. N9 Brackenridge, Pa. A4
29	.50x108 .40x120	Brackenridge,Pa. A4 Newport,Ky. N9
30	.40%120	Newport, Ry. 149

Motor Grade

Elec. Sht. Ga. 20. 21. 22. 22. 22.

23 . 23 . 23 . 23 .

27. 27. 27. 27. 28. 28. 28.

Width (in.)	Mill Point, Producer
.36	GraniteCity, Ill. G4
.36	GraniteCity,Ill. G4
.10 .36 .42	Warren, O. R2 GraniteCity, Ill. G4 Vandergrift, Pa. U5
.10 .36 .36 .42	Warren,O. R2 GraniteCity,Ill. G4 Zanesville,O. A10 Vandergrift,Pa. U5
.10	Warren,O. R2 GraniteCity,Ill. G4 Zanesville,O. A10 Vandergrift,Pa. U5
. 10 . 36 . 36 . 42	Warren,O. R2 GraniteCity,III, G4 Zanesville,O. A10 Vandergrift,Pa. U5
10 36 36	Warren, O. R2 GraniteCity, Ill. G4 Zanesville, O. A10 Vandergrift, Pa. U5
. 10 . 36 . 36 . 42	Warren, O. R2 GraniteCity, Ill. G4 Zanesville, O. A10 Vandergrift, Pa. U5
10 36 36	Warren, O. R2 GraniteCity, Ill. G4 Zanesville, O. A10 Vandergrift, Pa. U5
.36	Warren, O. R2 GraniteCity, Ill. G4 Zanesville, O. A10

-COILS

de

Aill Point, Producer	Dynamo Grade
ersburg, W. Va. F4 Mansfield, O. E6	-CUT LENGTHS
ersburg, W. Va. F4	Elec. Max.Width
Mansfield, O. E6	Sht. Max.Length
BeechBottom W10	Ga. (inches) Mill Point, Producer
ersburg, W.Va. F4	
andergrift, Pa. U5	2036x144 Parkersburg, W.Va. F4
Warren, O. R2	2136x144 Parkersburg, W.Va. F4
Mansfield, O. E6	2235x124 BeechBottom W10
Newport, Ky. N9	2236x144 Parkersburg, W. Va. F4
BeechBottom W10	2236x144 Vandergrift, Pa. U5
Zanesville, O. A10	2242x120 Newport, Ky. N9
ersburg, W.Va. F4 andergrift, Pa. U5	2335x124 BeechBottom W10
Warren, O. R2	2336x124 Zanesville, O. A10
Mansfield, O. E6	2336x144 Parkersburg.W.Va. F4
Newport, Kv. N9	2336x144 Parkersburg, W. Va. F4 2336x144 Vandergrift, Pa. U5
Newport, Ky. N9 BeechBottom W10	2342x120 Newport, Ky. N9
Zanesville, O. A10	2435x124 BeechBottom W10
ckenridge, Pa. A4	2436x124 Zanesville, O. A10
ersburg, W. Va. F4	2436x144 Brackenridge, Pa. A4
andergrift,Pa. U5	2436x144 Brackenridge, Pa. A4 2436x144 Parkersburg, W. Va. F4
Warren, O. R2	2436x144 Vandergrift, Pa. U5
Mansfield, O. E6	2440x120 Mansfield, O. E6 2442x120 Newport, Ky. N9
Newport, Ky. N9	2442x120 Newport, Ky. N9
ckenridge,Pa. A4 BeechBottom W10	2450x120 Brackenridge,Pa. A4
Zanesville, O. A10	2535x124 BeechBottom W10
ersburg, W. Va. F4	2536x124 Zanesville, O. A10
andergrift, Pa. U5	2536x144 Parkersburg, W.Va. F4 2536x144 Vandergrift, Pa. U5
Warren,O. R2	2540x120 Mansfield, O. E6
Mansfield, O. E6 Newport, Ky. N9	2542x120 Newport, Ky. N9
Newport, Ky. N9	2635x124 BeechBottom W10
BeechBottom W10	2636x124 Zanesville, O. A10
Zanesville.O. A10 ckenridge,Pa. A4	2636x144 Brackenridge, Pa. A4
ersburg, W. Va. F4	2636x144 Parkersburg, W. Va. F4
andergrift,Pa. U5	2636x144 Parkersburg, W.Va. F4 2636x144 Vandergrift, Pa. U5 2640x120 Mansfield, O. E6
Warren,O. R2	2640x120 Mansfield, O. E6
Manafield O E6	2642x120 Newport, Ky. N9
Newport, Ky. N9	2650x120 Brackenridge,Pa. A4
.ckenridge,Pa. A4	2735x124 BeechBottom W10
BeechBottom W10	2736x124 Zanesville, O. A10
Zanesville, O. A10	2736x144 Parkersburg, W. Va. F4
ersburg, W.Va. F4	2736x144 Vandergrift, Pa. U5 2740x120 Mansfield.O. E6
andergrift,Pa. U5 Warren,O. R2	2740x120 Mansfield.O. E6 2742x120 Newport, Ky. N9
Newport, Ky. N9	
BeechBottom W10	2834x124 BeechBottom W10
Zanesville, O. A10	2836x124 Zanesville, O. A10
ersburg, W. Va. F4	2836x144 Parkersburg, W. Va. F4 2836x144 Vandergrift, Pa. U5
andergrift, Pa. U5	2840x120 Mansfield, O. E6
Warren.O. R2	2842x120 Newport, Ky. N9
Newport, Ky. N9	2934x124 BeechBottom W10
BeechBottom W10	2936x124 Zanesville, O. A10
Zanesville, O. A10	2936x144 Brackenridge, Pa. A4
ckenridge,Pa. A4 ersburg,W.Va. F4	2936x144 Parkersburg, W.Va. F4
andergrift, Pa. U5	2936x144 Vandergrift, Pa. U5
Warren O R2	29 40x120 Mansfield, O. E6
Newport, Ky. N9	2940x120 Newport, Ky. N9
.ckenridge,Pa. A4	2950x108 Brackenridge, Pa. A4
Newport, Ky. N9	3040x120 Newport, Ky. N9

Dynamo Grade

		coils
Elec.	Max.	
	Width	
	(in.)	Mill Point, Producer
	10	Warren, O. R2
22		Vandergrift,Pa. U5
	10	Warren, O. R2
23		Zanesville, O. A10
23	42	Vandergrift, Pa. U5
24	10	Warren, O. R2
24	36	Zanesville, O. A10
24	42	Vandergrift, Pa. U5
25	10	Warren, O. R2
25		Zanesville, O. A10
25		Vandergrift, Pa. U5
26		Warren.O. R2
26		Zanesville, O. A10
26		Vandergrift, Pa. U5
27		Warren,O. R2
27		Zanesville, O. A10
27		Vandergrift, Pa. U5
28		Warren,O. R2
28		Zanesville, O. A10
28		Vandergrift, Pa. U5
29		
		Warren,O. R2
29		Zanesville, O. A10
29	42	Vandergrift,Pa. U5

Transformer 72

-CUT LENGTHS
Elec. Max.Width
Sht. Max.Length
Ga. (inches) Mill Point, Producer
2036x144 Parkersburg, W. Va. F4
2136x144 Parkersburg, W. Va. F4
2236x144 Parkersburg, W. Va. F4
2242x120 Newport, Ky. N9
2336x124 Zanesville, O. A10
2336x144 Parkersburg, W. Va. F4
2342x120 Newport, Ky. N9
2435x124 BeechBottom W10
2436x124 Zanesville, O. A10
2436x144 Brackenridge, Pa. A4
2436x144 Parkersburg, W. Va. F4
2442x120 Newport, Ky. N9
2450x120 Brackenridge, Pa. A4
2535x124 BeechBottom W10

Transformer 72

		-COL FEMBIUS
Elec.	Max.	
Sht.	Width	
Ga.		Mill Point, Producer
25	36x124	Zanesville, O. A10
		Parkersburg, W. Va. F4
	.42x120	Newport, Ky. N9
	.35x124	BeechBottom W10
	.36x124	Zanesville, O. A10
	.36x144	Brackenridge, Pa. A4
	36x144	Parkersburg, W. Va. F4
	.42x120	Newport, Ky. N9
	46x120	Brackenridge.Pa. A4
	.35x124	BeechBottom W10
	.36x124	Zanesville, O A10
	36x144	Parkersburg, W. Va. F4
	.42x120	Newport, Ky. N9
	.33x124	BeechBottom W10
	36x124	Zanesville, O. A10
		Parkersburg, W. Va. F4
	.42x120	Newport.Ky. N9
	.33x124	BeechBottom W10
	.36x124	Zanesville, O. A10
	36x144	Brackenridge, Pa. A4
	36x144	Parkersburg, W. Va. F4
	40x120	Newport, Ky. N9
	.46x120	Brackenridge, Pa. A4
	40x120	Newport, Ky. N9
00	, TUALLOU	Tromport, ity. 140

(in.)

.10 .36

36

-COILS

Mill Point, Producer Mill Point, Producer
Warren, O. R2
Warren, O. R2
Zanesville, O. A10

Transformer 65

CUT LENGTHS

th
th
Mill Point, Produce
BeechBottom W1
BeechBottom W1
Zanesville, O. A1
BeechBottom W1
Brackenridge, Pa. A.
Brackenridge, Pa. A.
BeechBottom W1
BeechBottom W1
Zanesville.O. Al
BeechBottom W1
Brackenridge, Pa. A.
Brackenridge, Pa. A.
-COILS

Mill Point, Producer Zanesville, O. A10 Zanesville, O. A10

Transformer 58

		-COI PENGIUS
Sht.	Max.Wid Max.Lengt (inches)	th
Ga.	(Inches)	
24	.34x124	BeechBottom W10
25	.34x124	BeechBottom W10
26	.30x120	Zanesville, O. A10
	.34x124	BeechBottom W10
26	.36x144	Brackenridge, Pa. A4
26	.46x120	Brackenridge, Pa. A4
27	.34x124	BeechBottom W10
28	.32x124	BeechBottom W10
29	.30x120	Zanesville, O. A10
29	.32x124	BeechBottom W10
29	.36x144	Brackenridge, Pa. A4
29	.46x120	Brackenridge, Pa. A4
	44	COUS

Mill Point, Producer Zanesville, O. A10 Zanesville, O. A10

Transformer 52

	Max.Width	OUT REMOTITS
	Max.Length	Mill Point, Producer
	.34x124	BeechBottom W10
25	.34x124	BeechBottom W10
26	.34x124	BeechBottom W10
27	.34x124	BeechBottom W10
28	.32x124	BeechBottom W10
29	.30x120	Zanesville, O. A10
29	.32x124	BeechBottom W10
		—COILS

Elec. Max. Sht. Width Ga. (in.)

29...36x132

Mill Point, Producer Zanesville, O. A10

Vandergrift, Pa. U5

Transf'er 100, 90

-CUT LENGTHS Elec. May Width Sht. Max.Length Ga. (inches) Mill Point, Producer

Transformer 80, 73

—CUT LENGTHS Elec. Max.Width Sht. Max.Length Ga. (inches) Mill Point, Producer 29...30x120 29...36x132 Zanesville, O. A10 Vandergrift, Pa. U5

-COILS

Elec. Max. Sht. Width Ga. (in.)

Mill Point, Producer Zanesville, O. A10

MANUFACTURERS

(Carbon Steel)

MANUFACTURERS

(Code number following mill point indicates producing company, key on page 38)

Manufacturers Coarse Wire

Manufacturers Coarse
Alabama City, Ala, R2
Alton, III, L1
Atlanta A11
Bartonville, III, K4
Buffalo M12
Chicago R2
Chicago R2
Chicago R3
Cleveland A7
Cortland, N. Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Fostoria, O. S1
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2

Wire

Vire
Kokomo, Ind. C16
LosAngeles B3
LosAngeles D1
MapleHeights, O. C20
Monessen, Pa. P7
Newark, N. J. 1-1
Portsmouth, O. D2
Pueblo, Colo. C10
Rankin, Pa. A7
Shelton, Comn. D5
S. S.anfran, Calif. C21
SparrowsPoint, Md. B2
Sterling, III. N15
Waukegan, III. A7
Worcester, Mass. A7

SPECIAL PURPOSE WIRE

Bag Tie Wire

Alton,Ill. L1 Atlanta A11 Bartonville,Ill. K4 Buffalo W12 Buffalo W12
Cleveland A7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Fostoria, O. S1
Houston S5
Lobortons De D2 Johnstown, Pa. B2

KansasCity, Mo. S5 LosAngeles B3 LosAngeles D1 Palmer, Mass. W12 Portsmouth, O. D2 S.SanFran, Calif. C21 SparrowsPoint, Md. B2 Waukegan, III. A7 Worcester, Mass. A7

Bale Tie Wire—Cross Head

Alton, Ill. L1
Bartonville, Ill. K4
Cleveland A7
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Johnstown, Pa. B2

Rankin, Pa. A7 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Bale Tie Wire—Single Loop

Alton, Ill. L1 Atlanta A11 Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfordsv'le,Ind. M8
Donora,Pa. A7
Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 KansasCity, Mo. S5 Kokomo, Ind. C16

Baling Wire Alton, Ill. L1

Atlanta A11
Bartonville, Ill. K4
Chicago W13
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8 Donora,Pa. A7 Duluth A7 Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 Joliet, Ill. A7

Alton,Ill. L1 Atlanta A11 Bartonville,Ill. K4 Buffalo M3 Buffalo W12 Chicago W13 Cheveland A7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Houston S5 Jacksonville,Fla. M8 Johnstown,Pa. B2

Sht. Ga.

Width (in.)

LosAngeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Pittsburg, Calif. C11
Rankin, Pa. A7
S. SanFran, Calif. C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers O. Y1 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

KansasCity, Mo. S5

KansasCity, Mo. S5 Kokomo, Ind. C16 LosAngeles D1 Minnequa, Colo C10 Monessen, Pa. P7 Newark, N.J. I-1 Pittsburg, Calif. C11 Portsmouth, O. D2 S.SanFran, Calif. C21 SparrowsPoint, Md. B2 Sterling, Ill. N15 Struthers, O. Y1

Basket Handle Wire

KansasCity, Mo. S5 LosAngeles B3 LosAngeles D1 Minnequa, Colo. C10 Monessen, Pa. P7 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 S.SanFran., Calif. C21 SparrowsPoint, Md. B2 Struthers, O, Y1 Waukegan, Ill. A7 Worcester, Mass. A7 KansasCity, Mo. S5

Binding Wire

Binding Wire
Alton,Ill. L1
Bartonville,Ill. K4
Buffalo M3
Buffalo W12
Chicago W13
Cleveland A7
Cortland,N.Y. W11
Crawfrdsv'le,Ind. M8
Donora,Pa. A7
Duluth A7
Houston S5 Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2

Can Key Wire

Alton, Ill. L1 Alton, III. L1
Atlanta A11
Bartonville, III. K4
Buffalo W12
Chicago W13
Cleveland A7
Cortland, N.Y. W11
Crawfrdsv'le, Ind. M8
Donora, Pa. A7
Fostoria, O. S1
Houston S5
Jacksonville, Fla. M8 Jacksonville, Fla. M8 Joliet, Ill. A7

Clothes Pin Wire

Alton, III. L1
Atlanta A.11
Bartonville, III. K4
Buffalo W12
Cleveland A.7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A.7
Duluth A.7
Fouston S.5 Houston S5 Jacksonville, Fla. M8

KansasCity, Mo. S5 Kokomo, Ind. C16 Minnequa, Colo. C10 Monessen, Pa. P? Newark, N.J. I-I Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 So. SanFran, Calif. C21 SparrowsPoint, Md. B2 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

KansasCity, Mo. S5 LosAngeles D1 Monessen, Pa, P7 Newark, N. J. I-1 Pittsburg, Calif. C11 Portsmouth, O. D2 Rankin, Pa, A7 So.SanFran., Calif. C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

KansasCity, Mo. S5 Monessen, Pa. P7 Newark, N.J. 1-1 Palmer, Mass. W12 Pittsburg, Galif. C11 Portsmouth, O. D2 So. SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

MANUFACTURERS

(Code number following mill point indicates producing company, key on page 38)

Coat Hanger Wire

Alton, Ill. L1
Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Chicago W13
Cleveland A7
Cleveland A7
Cleveland A9
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5
Kokomo, Ind. C16

Los Angeles B3
Los Angeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Newark, N. J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Rankin, Pa. A7
So, San Francisco C21
Sparrows Point, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7

Cotter Pin Wire

Alton, III. L1 Buffalo W12 Cleveland A7 Crawfordsv'le, Ind. M8 Fostoria, O. S1 Johnstown, Pa. B2 Kokomo, Ind. C16

LosAngeles D1 Newark, N.J. I-1 Portsmouth, O. D2 SparrowsPoint, Md. B2 Waukegan, III. A7 Worcester, Mass. A7

Crimping Wire (except for upholstery)

Alton, III. L1
Atlanta A11
Bartonville, III. K4
Buffalo M3
Buffalo W12
Chicago W13
Cleveland A7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Fostoria, O. S1
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2

k for upholstery)

KansasCity, Mo. S5
Kokomo, Ind. C16
LosAngele's B3
LosAngele's B3
LosAngele's B1
Monessen, Pa. P7
Newark, N. J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
So, SanFrancisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7

Foundry Core Wire

Alton, III. L1
Atlanta A11
Bartonville, III. K4
Buffalo W12
Chicago W13
Cleveland A7
Cleveland A9
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Fostoria, O. S1
Houston S5
Johnstown, Pa. B2

KansasCity, Mo. S5 Kokomo, Ind. C16 LosAngeles B3 Monessen, Pa. P7 Newark, N.J. I-1 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmbuth, O. D2 So, SanFranelsco C21 SparrowsPoint, Md. B2 Sterling, Ill. N15 Struthers, O. Y1 Waukegan, Ill. A7

Lintel Wire (or Head Lining Wire)

Buffalo W12 Cleveland A7 Donora,Pa. A7 Houston S5 Johnstown,Pa. B2 KansasCity,Mo. S5 LosAngeles B3 Palmer, Mass. W12 Portsmouth, O. D2 So. SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Lock Washer Wire

Alton, Ili. L1 Bartonville, Ili. K4 Buffalo W12 Cleveland A7 Donora, Pa. A7 Johnstown, Pa. B2 Kansas City, Mo. S5 Monessen, Pa. P7 Newark, N. J. 1-1 Portsmouth, O. D2 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Loop Wire

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo M3
Cleveland A7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
Joliet, Ill. A7

KansasCity, Mo. S5 LosAngeles B3 Minnequa, Colo. C10 Monessen, Pa. P7 Newark, N. J. 1-1 Portsmouth, O. D2 Rankin, Pa. A7 So. SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7

Low Metalloid Wire—Grade 1

Houston S5 KansasCity, Mo. S5 Worcester, Mass. T6

Low Metalloid Wire-Grade 2

Houston S5 KansasCity, Mo. S5 Monessen, Pa. P7 Worcester, Mass. T6

Low Metalloid Wire-Grade 3

Cleveland A7 Houston S5 KansasCity, Mo. S5 Monessen, Pa. P7 Pittsburg, Calif. C11 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Metal Stitching Wire

Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Crawfordsv'le, Ind. M8
Fostoria,O. S1
Jacksonville, Fla. M8
Johnstown,Pa. B2
Newark, N. J. I-1
Palmer, Mass. W12

Portsmouth, O. D2 Roebling, N. J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. W20

Pail Bail Wire

Alton, Ill. L1
Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Chicago W13
Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Donora, Pa. A7
Duluth A7
Fostoria, O. S1
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

Kokomo, Ind. *C16 LosAngeles B3 LosAngeles D1 Minnequa, Colo. C10 Monessen, Pa. P7 Newark, N.J. I-1 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 So. SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7

Rope Wire-Mild plow steel

Alton,III. L1
Bartonville,III. K4
Buffalo W12
Postoria,O. S1
Johnstown,Pa. B2
Kenosha, Wis. M2
LosAngeles B3
LosAngeles D1
Monessen,Pa. P7
NewHaven,Conn. A7
NewYork W3

Palmer, Mass. W12 Portsmouth, O, D2 Roebling, NJ. R5 So. SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O, Y1 Trenton, NJ. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Rope Wire-Plow steel

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo W12
Fostoria, O. S1
Johnstown, Pa. B2
Kenosha, Wis. M2
LosAngeles B3
LosAngeles D1
Monessen, Pa. P7
NewHaven, Conn. A7
NewYork W3

Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N. J. R5 So, SanFrancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N. J. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Rope Wire-Improved plow steel

Alton,III. L1
Bartonville, III. K4
Buffalo W12
Fostoria, O. S1
Johnstown, Pa. B2
Kenosha, Wis. M2
LosAngeles B3
LosAngeles D1
Monessen, Pa. P7
NewHaven, Conn. A7
NewYork W3

Palmer, Mass. W12
Portsmouth, O. D2
Roebling, N. J. R5
So. SanFrancisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Trenton, N. J. A7
Worcester, Mass. J4
Worcester, Mass. W20

Galvanized Rope Wire

Atlanta A11 Bartonville, Ill. K4 Buffalo W12 Jehnstown, Pa. B2 LosAngeles D1 Monessen, Pa. P7 NewHaven, Conn. A7 Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N.J. A7 Worcester, Mass. J4 Worcester, Mass. W20

Drawn Galvanized Rope Wire

Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Johnstown, Pa. B2
Kenosha, Wis. M2
LosAngeles D1
Monessen, Pa. P7
NewHaven, Conn. A7
Palmer, Mass. W12

Portsmouth, O. D2 Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N.J. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Galvanized Bridge Wire

Johnstown,Pa. B2 KansasCity,Mo. S5 Roebling,N.J. R5 SparrowsPoint,Md. B2 Trenton,N.J. A7 Worcester,Mass. T6

Screw Driver Wire

Bartonville, Ill. K4 Buffalo W12 Cleveland A7 Donora, Pa. A7 Johnstown, Pa. B2 LosAngeles B3 Millbury, Mass. N6 Monessen, Pa. P7 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N.J. R5 Shelton, Conn. D5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W12

Shoe Nail Wire

Bartonville, III. K4 Buffalo M3 Cleveland A7 Cortland, N.Y. W11 Crawfrdsville, Ind. M8 Donora, Pa. A7 Johnstown, Pa. B2 Newark, N.J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Shelton, Conn. D5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. W20

MANUFACTURERS

Spoke Wire

Bartonville, III. K4 Buffalo W12 Cleveland A7 Crawfrdsville, Ind. M8 Donora, Pa. A7 Jacksonville, Fla. M8 Johnstown, Pa. B2 LosAngeles B3 MapleHeights, O. C20

Monessen,Pa. P7 Palmer,Mass. W12 Portsmouth,O. D2 Roebling,N.J. R5 SparrowsPoint,Md. B2 Struthers,O. Y1 Waukegan,Ill. A7 Worcester,Mass. A7

Stapling Wire for Box Binding Machines

Alton,III. L1
Atlanta A11
Bartonville,III. K4
Buffalo M3
Buffalo W12
Chicago C6
Chicago C13
Cleveland A7
Cortland,N.Y. W11
Crawfrdsville, Ind. M8
Donora,Pa. A7
Duluth A7
Fostoria, O. S1
Houston S5
Jacksonville,Fla. M8
Johnstown,Pa. B2
KansasCity,Mo. S5

Kokomo, Ind. C16
LosAngeles B3
LosAngeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Newark, N. J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
So, SanFrancisco C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7
Worcester, Mass. T6
Worcester, Mass. W20

Strapping Wire (or Tying Wire)

Alton,III. L1
Atlanta A11
Bartonville,III. K4
Chicago W13
Cleveland A7
Cortland,N.Y. W11
Crawfrdsville,Ind. M8
Donora,Pa. A7
Duluth A7
Fostoria,O, S1
Houston S5
Jacksonville,Fia. M8
Johnstown,Pa. B2
KansasCity,Mo. S5
LosAngeles B3

LosAngeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Newark, N. J. I-1
Pittsburg, Calif. C11
Portsmouth, O. D2
Rankin, Pa. A7
So. SanFrancisco C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7
Worcester, Mass. T6

Telephone-Telegraph Wire-Extra Best Best

Cleveland A7 Donora,Pa. A7 Johnstown,Pa. B2 SparrowsPoint,Md. B2 Waukegan,Ill. A7

Telephone-Telegraph Wire-Best Best

Bartonville,Ill. K4 Cleveland A7 Donora,Pa. A7 Duluth A7 Johnstown,Pa. B2 Monessen, Pa. P7 Roebling, N.J. R5 Sparrows Point, Md. B2 Waukegan, Ill. A7 Worcester, Mass. A7

Telephone-Telegraph Wire-Steel

Cleveland A7 Donora,Pa. A7 Duluth A7 Houston S5 Johnstown,Pa. B2 KansasCity, Mo. S5 Monessen, Pa. P7 SparrowsPoint, Md. B2 Waukegan, III. A7 Worcester, Mass. A7

Wire for Case Hardened Balls

Alton, Ill. L1 Cleveland A7 Crawfrdsville, Ind. M8 Donora, Pa. A7 Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 KansasCity, Mo. S5 LosAngeles B3 Monessen, Pa. P7
Portsmouth, O. D2
Shelton, Conn. D5
So. SanFrancisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Waukegan, III. A7
Worcester, Mass. A7
Worcester, Mass. W20

Wire for Chain Link Fence

Alton,Ill. L1
Atlanta A11
Bartonville,Ill. K4
Buffalo W12
Cleveland A7
Crawfrdsville,Ind. M8
Donora,Pa. A7
Duluth A7
Houston S5
Jacksonville,Fla. M8
Johnstown,Pa. B2
KansasCity,Mo. S5
Kokomo,Ind. C16
LosAngeles B3

Losangeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Newark, N.J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Shelton, Conn. D5
So. SanFrancisco C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7

COARSE ROUND WIRE (Carbon Steel)

(Code number following mill point indicates producing company, key on page 38)

Wire for Cold Rolling

Alton, Ill. L1
Atanta A11
Bartonville, Ill. K4
Buffalo W12
Chicago W13
Cleveland A7
Cortland, N. Y. W11
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5
Kokomo, Ind. C16

Los Angeles B3 Monessen, Pa. P7 Newark, N. J. I-1 Palmer, Mass. W12 Pittsburg, Callf. C11 Portsmouth, O. D2 Roebling, N. J. R5 So. SanFrancisco C21 SparrowsPoint, Md. B2 Sterling, Ill. N16 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. A7

Wire for Electric Welded Automobile and Truck Tire Skid Chains

Alton, III. L1
Bartonville, III. K4
Buffalo W12
Cleveland A7
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

LosAngeles B3
MapleHeights, O. C20
Monessen, Pa. P7
Newark, N.J. I-1
Palmer, Mass. W12
Portsmouth, O. D2
SparrowsPoint, Md. B2
Sterling, III. N15
Struthers, O. Y1
Waukegan, III. A7
Worcester, Mass. A7

Wire for Electric Welded Industrial Chains

Alton, III. L1
Bartonville, III. K4
Buffalo W12
Cleveland A7
Crawfordsville M8
Donora, Pa. A7
Duluth A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

LosAngeles B3
MapleHeights, O. C20
Monessen, Pa. P7
Newark, N. J. 1-1
Palmer, Mass. W12
Portsmouth, O. D2
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7

Wool Wire

Cleveland A7 Crawfordsv'le,Ind. M8 Donora,Pa. A7 Jacksonville,Fla. M8 Johnstown,Pa. B2 Waukegan,Ill. A7

WIRE FOR UPHOLSTERY SPRING CONSTRUCTIONS

Uphoistery Spring Wire

Alton.Ill. L1
Buffalo W12
Cleveland A7
Donora.Pa. A7
Duluth A7
Johnstown.Pa. B2
KansasCity.Mo. S5
Kenosha.Wis. M2
LosAngeles B3
LosAngeles D1
Monessen.Pa. P7
NewHaven,Conn. A7

Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
So. San Francisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Trenton, N. J. A7
Waukegan, Ill. A7
Worcester, Mass. A7
Worcester, Mass. J4

High Tensile Wire for No-Sag or Zig-Zag Springs

Alton,Ill. L1
Bartonville,Ill. K4
Buffalo W12
Cleveland A7
Donora,Pa. A7
Duluth A7
Johnstown,Pa. B2
LosAngeles B3
Monessen,Pa. P7
NewHaven,Conn. A7

Pittsburg, Calif. C11 Portsmouth, O. D2 Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N.J. A7 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4

Hog Ring Wire

Alton, III. L1
Bartonville, III. K4
Buffalo W12
Chicago W13
Cleveland A7
Crawfordsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Postoria, O. S1
Houston S5
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
LosAngeles D1

Minnequa, Colo. C10 Monessen, Pa. P7 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 Rankin, Pa. A7 So. SanFrancisco C21 SparrowsPoint, Md. B2 Sterling, Ill. N15 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. W20

Regular Lacing Wire

Alton, Ill. L1
Bartonvile, Ill. K4
Buffalo W12
Cleveland A7
Cortland, N.Y. W11
Crawfrdsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
Monessen, Pa. P7

NewHaven, Conn. A7 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 Roebling, N. J. R5 So, Sanh rancisco C21 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N. J. A7 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. W20

Regular Round Low Carbon Border Wire

Alion, Ill. L1
Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Chicago W13
Cleveland A7
Cortland, N. Y. W11
Crawfrdsv'le, Ind. M8
Donora, Pa. A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3

Carbon Border Wire
LosAngeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Newark, N.J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
So, SanFrancisco C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. W20

Round High Carbon Wire in Coils for Borders and Braces

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
LosAngeles D1
Monessen, Pa. P7

Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
So, SanFrancisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7
Worcester, Mass. J4

Round Low Carbon Crimping Wire for Upholstery Constructions

Alton, Ill. L1
Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Cortland, N. Y. W11
Crawfrdsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

Los Angeles B3 Los Angeles D1 Monessen.Pa. P7 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 So, SanFrancisco C21 SparrowsPoint. Md. B2 Sterling, III. N15 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7

Round Low Carbon Frame Wire for Spot Welding

Alton, Ill. L1 Atlanta Al1 Bartonville, Ill. K4 Buffalo W12 Cleveland A7 Cortland, N.Y. W11 Crawfrdsv'le, Ind. M8 Donora, Pa. A7 Duluth A7 Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 KansasCity, Mo. S5 LosAngeles B3
LosAngeles D1
Minnequa, Colo. C10
Monessen, Pa. P7
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
So. SanFrancisco C21
SparrowsPoint, Md. B2
Sterling, Ill. N15
Waukegan, Ill. A7
Worcester, Mass. A7

Round Wire for Link Fabric; to be used on Automatic Link Fabric Machines

Alton, Ill. L1
Atlanta A11
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Cortland, N.Y. W11
Crawfrdsv'le, Ind. M8
Donora, Pa. A7
Duluth A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

LosAngeles B3
LosAngeles D1
Monessen.Pa. P7
Palmer.Mass. W12
Pittsburg.Calif. C11
Portsmouth,O. D2
So.SanFrancisco C21
SparrowsPoint,Md. B2
Sterling, Ill. N15
Struthers,O. Y1
Waukegan, Ill. A7
Worcester,Mass. A7

Special Automatic Lacing Wire

Alton, III. L1
Bartonville, III. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Duluth A7
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
Monessen, Pa. P7
NewHaven, Conn. A7

Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
So. SanFrancisco C21
SparrowsPoint, Md. B2
Struthers, O. Y1
Trenton, N. J. A7
Waukegan, Ill. A7
Worcester, Mass. W20

Special Upholstery Spring Wire for Use in Automatic Coiling and Knotting Machines

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Duinth A7
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
Monessen, Pa. P7
NewHaven, Conn. A7

Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
So, San Francisco C21
Sparrows Point, Md. B2
Trenton, N. J. A7
Waukegan, Ill. A7
Worcester, Mass. J4

Spring Wire for Manufacture of Close Wound Cross Helical Springs, Short and Long Helical Mattress Springs

Akron J4
Alton, III. L1
Bartonville, III. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Duluth A7
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
Monessen, Pa. P7
NewHayen, Conn. A7

Palmer, Mass. W12
Pittsourg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
So. SanFrancisco C21
SparrowsPoint, Md. B2
Trenton, N. J. A7
Worcester, Mass. A7
Worcester, Mass. J4
Worcester, Mass. W20

Spring Wire for Severe Crimping or Clinching Upholstery Spring Constructions

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Johnstown, Pa. B2
KansasCity, Mo. S5
LosAngeles B3
Monessen, Pa. P7
NewHaven, Conn. A7

Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 Roebling, N. J. R5 So. SanFractisco C21 SparrowsPoint, Md. B2 Trenton, N. J. A7 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4

WIRE FOR MANUFACTURE OF MECHANICAL SPRINGS

Oil Tempered Spring Steel Wire, MB type

Alton, Ill. L1
Buffalo W12
Cleveland A7
Fostoria, O. S1
Millbury, Mass. N6
Portsmouth, O. D2
Roebling, N.J. R5

Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W12 Worcester, Mass. W20

Oil Tempered Spring Steel Wire, WMB type

Millbury, Mass. N6 Roebling, N.J. R5 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Hard Drawn Spring Steel Wire, MB type

Akron J4 Alton, III. L1 Bartonville, III. K4 Buffalo W12 Cleveland A7 Donora, Pa. A7 Duluth A7 Fostoria, O. S1 Johnstown, Pa. B2 Los Angeles B3 Monessen, Pa. P7 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 Roebling, N. J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N. J. A7 Waukegan, III. A7 Worcester, Mass. A4 Worcester, Mass. J4 Worcester, Mass. W20

Hard Drawn Spring Steel Wire, WMB type

Akron J4 Roebling, N.J. R5 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Spheroidized Annealed Spring Steel Wire, MB type

Alton, III. L1
Bartonville, III. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Fostoria, O. S1
Johnstown, Pa. B2
LosAngeles D1
Millbury, Mass. N6

Monessen,Pa, P7 Palmer,Mass, W12 Portsmouth,O, D2 Roebling,N.J. R5 SparrowsPoint,Md, B2 Struthers,O, Y1 Waukegan,III, A7 Worcester,Mass, A7 Worcester,Mass, T6

Spheroidized Annealed Spring Steel Wire, WMB type

Millbury, Mass. N6 Roebling, N.J. R5

Worcester, Mass. T6

ROUND WIRE (Carbon Steel)

MANUFACTURERS

(Code number following mill point indicates producing company, key on page 38)

Spheroidized Annealed and Lightly Drawn (or Bright Soft) Spring Steel Wire, MB

type

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo W12 Cleveland A7 Donora,Pa. A7 Fostoria,O. S1 Johnstown, Pa. B2 Millbury, Mass. N6 Monessen, Pa. P7

Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N. J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Spheroidized Annealed and Lightly Drawn (or Bright Soft) Spring Steel Wire, WMB type

Millbury, Mass. N6 Roebling, N.J. R5

Worcester, Mass. T6

Untempered Spring Steel Wire, MB type

Akron J4 Alton,Ill. L1 Bartonville,Ill. K4 Buffalo W12 Buffalo W12 Cleveland A7 Donora,Pa. A7 Duluth A7 Fostoria,O. S1 Johnstown,Pa. B2 LosAngeles B3 Los Angeles D1 Millbury, Mass. N6 Monessen, Pa. P7 eel Wire, MB type
Palmer, Mass. W12
Pittsburg, Calif. C11
Portsmouth, O. D2
Roebling, N. J. R5
SparrowsPoint, Md. B2
Struthers, O. Y1
Trenton, N. J. A7
Waukegan, Ill. A7
Worcester, Mass. J4
Worcester, Mass. J4
Worcester, Mass. W20

Untempered Spring Steel Wire, WMB type

Akron J4 Buffalo W12 Millbury, Mass. N6 Palmer, Mass. W12

Roebling, N.J. R5 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Spheroidized Annealed Spring Steel Wire, HB type

Alton,Ill. L1
Bartonville,Ill. K4
Buffalo W12
Cleveland A7
Johnstown,Pa. B2
Millbury,Mass. N6
Monessen,Pa. P7

Portsmouth, O. D2 Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Spheroidized Annealed Spring Steel Wire, WHB type

Millbury, Mass. N6 NewYork W3

Roebling, N.J. R5 Worcester, Mass. T6

Spheroidized Annealed Spring Steel Wire, Extra HB type

Alton,Ill. L1 Buffalo W12 Cleveland A7 Johnstown,Pa. B2 Millbury,Mass. N6 Monessen,Pa. P7 Portsmouth, O. D2

Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Spheroidized Annealed Spring Steel Wire, Extra WHB type Millbury, Mass. N6 Roebling, N.J. R5

Worcester, Mass. T6

Spheroidized Annealed and Lightly Drawn Spring Steel Wire, HB type

Alton, Ill. L1
Bartonville, Ill. K4
Cleveland A7
Johnstown, Pa. B2
Millbury, Mass. N6
Monessen, Pa. P7
Portsmouth, O. D2

Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Yi Waukegan, Ili. A7 Worcester, Mass. A7 Worcester, Mass. T6

Spheroidized Annealed and Lightly Drawn Spring Steel Wire, WHB type

Millbury, Mass. N6 NewYork W3

Roebling, N.J. R5 Worcester, Mass. T6

Spheroidized Annealed and Lightly Drawn Spring Steel Wire, Extra HB type

Alton, Ill. L1 Cleveland A7 Johnstown, Pa. B2 Millbury, Mass. N6 Monessen, Pa. P7 Roebling, N.J. R5

SparrowsPoint, Md. B2 Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7
Worcester, Mass. T6

Spheroidized Annealed and Lightly Drawn Spring Steel Wire, Extra WHB type

Millbury, Mass. N6 Roebling, N.J. R5 Worcester, Mass. T6

Oil Tempered Spring Steel Wire, HB type

Alton,Ill. L1
Buffalo W12
Cleveland A7
Millbury,Mass. N6
Portsmouth,O. D2
Roebling,N.J. R5

Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W12 Worcester, Mass. W20

Oil Tempered Spring Steel Wire, WHB type

Millbury, Mass. N6 Roebling, N.J. R5 Worcester, Mass. J4

Worcester, Mass. T6 Worcester, Mass. W20

Oil Tempered Spring Steel Wire, Extra HB type

Alton,Ill. L1 Cleveland A7 Millbury, Mass. N6 Roebling, N.J. R5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Oil Tempered Spring Steel Wire, Extra WHB type

Milibury, Mass. N6 Roebling, N.J. R5 Worcester, Mass. J4

Worcester, Mass. T6 Worcester, Mass. W20

Aircraft Steel Spring Wire

Bartonville, Ill. K4 Fostoria, O. S1 Millbury, Mass. N6 Portsmouth, O. D2 Roebling, N.J. R5

Waukegan, Ill. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Music Spring Steel Wire

Alton, Ill. L1 Bartonville, Ill. K4 Millbury, Mass. N6 NewYork W3 Roebling, N.J. R5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. W20

Valve Spring Wire

Millbury, Mass. N6 NewYork W3 Portsmouth, O. D2

Roebling, N.J. R5 Waukegan, Ill. A7 Worcester, Mass. W12

WIRE FOR COLD HEADING AND COLD FORGING

Aircraft Quality Bolt and Screw Wire

Chicago W13 Cleveland A7 Donora, Pa. A7 Elyria, O. W8 Houston S5 KansasCity, Mo. S5 MapleHeights, O. C20 Monessen, Pa. P7 Portsmouth, O. D2 Waukegan, Ill. A7 Worcester, Mass. A7

Wood Screw Wire (for conventional slotted head type screws)

head type screws
Atlanta A11
Bartonville, Ill. K4
Chicago W13
Cleveland A7
Crawfrdsville, Ind. M8
Donora, Pa. A7
Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5

LosAngeles B3 MapleHeights,O. C20 Monessen,Pa. P7 Newark,N.J. I-1 Pittsburg, Calif. C11 Portsmouth, O. D2 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Machine Screw Wire (for conventional slotted head type screws)

Alton, Ill. L1
Bartonville, Ill. K4
Chicago W13
Cleveland A7
Crawfrdsville, Ind. M8
Donora, Pa. A7
Elyria, O. W8
Houston 95 Houston S5
Jacksonville, Fla. M8
Johnstown, Pa. B2
KansasCity, Mo. S5
Kokomo, Ind. C16

screws)
LosAngeles B3
MapleHeights, O. C20
Monessen, Pa. P7
Newark, N. J. I-1
Pittsburg, Calif. C11
Portsmouth, O. D2
Shelton, Conn. D5
SparrowsPoint, Md. B2
Sterling, Ill. N15
Struthers, O. Y1
Waukegan, Ill. A7
Worcester, Mass. A7

Sheet Metal Screw Wire (for conventional slotted head type screws)

Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfrdsville, Ind. M8 Donora, Pa., A7 Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 Los Angeles B3 MapleHeights, O. C20

Monessen.Pa. P7 Monessen,Pa. P7 Newark,N.J. I-1 Pittsburg,Calif, C11 Portsmouth,O. D2 Shelton,Conn. D5 SparrowsPoint,Md. B2 Sterling,Ill. N15 Struthers,O. Y1 Waukegan,Ill. A7 Worcester,Mass. A7

Wood Screw Wire (for recessed head type screws or struck slot screws)

Screws of struck s Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfrdsville, Ind. M8 Donora, Pa. A7 Jacksonville, Fla. M8 Johnstown, Pa. B2 LosAngeles B3 MapleHeights, O. C20

Monessen.Pa. P7 Newark,N.J. I-1 Pittsburg,Calif. C11 Portsmouth,O. D2 Shelton,Com. D5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Machine Screw Wire (for recessed head type screws or struck slot screws)

Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfrdsville, Ind. M8 Crawirdsville, Ind. Mis Donora, Pa. A7 Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 KansasCity, Mo. S5 LosAngeles B3

MapleHeights, O. C20 MapleHeights, O. C20 Monessen, Pa. P.7 Newark, N. J. 1-1 Pittsburg, Calif. C11 Portsmouth, O. D2 Shelton, Conn. D5 Sparrows Point, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7

Sheet Metal Screw Wire (for recessed head type screws or struck slot screws)

Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfrdsville, Ind. M8 Donora, Pa. A7 Houston S5 Houston S5 Jacksonville, Fla. M8 Johnstown,Pa. B2 KansasCity,Mo. S5 LosAngeles B3

MapleHeights, O. C20 Monessen, Pa. P.7 Newark, N. J. 1-1 Pittsburg, Calif. C11 Portsmouth, O. D2 Shelton, Conn. D5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7

Wire for Manufacture of Special Head Type Screws (fillister head, truss head, binder head, pan head, oven head, large head, washer head, socket head)

Bartonville, Ill. K4 Chicago W13 Cleveland A7 Crawfrdsville, Ind. M8
Donora.Pa. A7
Elyria, O. W8
Houston S5 Jacksonville, Fla. M8 Johnstown, Pa. B2 KansasCity, Mo. S5 LosAngeles B3

MapleHeights, O. C20 Monessen, Pa. P7 Newark, N. J. I-1 Pittsburg, Calif. C11 Portsmouth, O. D2 Shelton, Conn. D5 SparrowsPoint, Md. B2 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7

Wire for Scrapless Nuts

Cleveland A7 Donora.Pa. A7 Elyria,O. W8 Houston S5 Johnstown, Pa. B2 Kansas City, Mo. S5 Monessen,Pa. P7 SparrowsPoint,Md. B2 Struthers,O. Y1 Waukegan,Ill. A7 Worcester,Mass. A7

Welding Wire-Electric Arc Welding Quality

Atlanta A11 Bartonville, Ill. K4 Buffalo W12 Buffalo W12 Chicago W13 Cleveland A7 Cortland,N.Y. W11 Crawfrdsville,Ind. M8 Donora.Pa. A7 Duluth A7 Houston S5

Johnstown, Pa. B2 KansasCity, Mo. S5 MapleHeights, O. C20 Monessen, Pa. P7 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 SparrowsPoint, Md. B2 Struthers, O. Y1 Struthers, O. Y1 Waukegan, Ill. A7

Welding Wire—Gas Welding Quality

Atlanta A11 Bartonville, Ill. K4 Buffalo W12 Chicago W13 Cleveland A7 Cortland, N. Y. W11 Crawfrdsville, Ind. M8 Donora.Pa. A7

Johnstown, Pa. B2 Jonnstown, Pa., B2 Monessen, Pa. P7 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Sparrows Point, Md. B2 Struthers, O. Y1 Waukegan, Ill. A7

Galvanized Steel Wire for Aluminum Cable Steel Reinforcement

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Donora, Pa. A7
Duluth A7
Johnstown, Pa. B2
Monessen, Pa. P7

Sidel Keinforcement NewHaven, Conn. A7 Portsmouth, O. D2 Roebling, N. J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1 Trenton, N. J. A7 Waukegan, Ill. A7 Worcester, Mass. A7

MANUEACTURERS

(Code number following mill point indicates producing company, key on page 38)

Manufacturers Fine or Weaving Wire

Alton.Ill. L1 Bartonville, Ill. K4
Buffalo M3 Buffalo M3
Chicago C6
Chicago W13
Cleveland A7
Cortland, N.Y. W11
Crawfordsv'le, Ind. M8
Fostoria, O. S1
Holyoke, Mass. P18
Jacksonville, Fla. M8
KansasCity, Mo. S5

Kokomo, Ind. C16 Kokomo, Ind. C16 LosAngeles D1 Newark, N.J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N.J. R5 Shelton, Conn. D5 S. SanFran, Calif. C21 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. A7 Worcester, Mass. W20

SPECIAL PURPOSE WIRE

Aircraft Cord Wire

Bartonville, Ill. K4 Gleveland A7
Fostoria, O. S1
Holyoke, Mass. P18
Kenosha, Wis. M2
NewHaven, Conn. A7
Palmer, Mass. W12

Bookbinder Wire

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3 Buffalo W12 Chicago Cf Chicago C6 Chicago W13 Cleveland A7 Cortland, N.Y. W11 Crawfrdsville, Ind. M8 Fostoria, O. S1

Broom Wire

Alton, Ill. L1 Bartonville, Ill. K4 Bartonville, III. K4
Buffalo M3
Buffalo W12
Chicago C6
Chicago W13
Cleveland A7
Cortband, N.Y. W11
Crawfrdsville, Ind. M8 Fostoria, O. S1 Holyoke, Mass. P18 Jacksonville Fla. M8

Portsmouth, O. D2 Roebling, N. J. R5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20 Holyoke, Mass. P18 Kokomo, Ind. C16 LosAngeles D1 Newark, N.J. I-1 Palmer, Mass. W12 Shelton, Conn. D5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Kokomo, Ind. C16 Los Angeles D1 Newark, N.J. 1-1 Palmer, Mass. W12 Pittsburg, Calif. C11 Portsmouth, O. D2 Shelton, Conn. D5 So. San Francisco C21 Struthers O. V1 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Brush Wire, Round Untempered-Low Carbon

Alton,Ill. L1 Buffalo M3 Buffalo W12 Buffalo W12 Chicago C6 Cleveland A7 Cortland, N. Y. W11 Crawfrdsville, Ind. M Jacksonville, Fla. M8 Newark, N.J. I-1 MR

Palmer, Mass. W12 Palmer, Mass. W12 Portsmouth, O. D2 Shelton, Conn. D5 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Brush or Scratch Wire, Round Untempered Roebling, N.J. R5 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Alton, Ill. L1 Buffalo W12 Cleveland A7 Crawfrdsville, Ind. M8 Fostoria, O. S1 Jacksonville, Fla. M8 Newark, N.J. I-1 Palmer, Mass. W12

Brush Wire, Round Untempered-

High Strength Alton, Ill. L1
Buffalo W12
Cleveland A7
Crawfrdsville, Ind. M8
Jacksonville, Fla. M8
Palmer, Mass. W12
Roebling, N.J. R5

Brush Wire, Round Oil Tempered Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Buffalo W12 Cleveland A7 Fostoria, O. S1 Struthers, O. Y1 Waukegan, Ill. A7

Fish Hook Wire

Bartonville, Ill. K4 Cleveland A7 NewYork W3 Portsmouth, O. D2 Roebling, N.J. R5

Flexible Shaft Wire

riexide Sadr Wire
Alton, Ill. L1
Bartonville, Ill. K4
Buffalo M3
Buffalo W12
Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Fostoria, O. S1
Jacksonville, Fla. M8

Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Millbury, Mass. N6 Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N. J. R5 Wankegan, III. A7 Worcester, Mass. J4 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Florist Wire

Alton, Ill. L1 Alton,III. LI
Buffalo M3
Buffalo W12
Cleveland A7
Cortland,N.Y. W11
Crawfrdsville,Ind. M8
Fostoria,O. S1 Kokomo Ind. C16

LosAngeles D1 Newark, N.J. I-1 Roebling, N.J. R5 So. SanFrancisco C21 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. W20

Fuse Wire (for carrying current to electric detonators of explosives)

Alton III T.1 Cleveland A7 Cortland, N.Y. W11 Fostoria, O. S1 Palmer, Mass. W12 Portsmouth O D2 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. W20

Hair Pin Wire-Common Grade

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo M3
Buffalo W12
Chicago C6
Chicago W13
Clayeland A7 Chicago W13 Cleveland A7 Cortland, N.Y. W11 Crawfrdsville, Ind. M8 Fostoria, O. S1

Jacksonville, Fla. M8 Jacksonville, Fla. Ms LosAngeles D1 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Sheiton, Conn. D5 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Hair Pin Wire-Hard Grade

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3 Buffalo W12 Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Fostoria, O. S1
Jacksonville, Fla. M8

LosAngeles D1 Newark, N.J. I-1 Portsmouth, O. D2 Shelton, Conn. D5 Struthers, O. Y1 Waukegan,Ill. A7 Worcester,Mass A7 Worcester,Mass. T6 Worcester,Mass. W20

Hair Pin Wire-Bobby Pin Wire

Alton,Ill. L1 Buffalo M3 Buffalo W12 Cleveland A7 Fostoria, O. S1 Newark, N.J. I-1 Roebling, N. J. R5 Struthers, O. Y1 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. T6

Hook and Eve Wire

Buffalo M3
Buffalo W12
Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Newark, N.J. 1-1
Palmer, Mass. W12

Portsmouth, O. D2 Roebling, N.J. R5 Shelton, Conn. D5 Waukegan,Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Hose Reinforcement Wire

Alton, Ill. L1
Buffalo W12
Cleveland A7
Crawfrdsville, Ind. M8
Newark, N. J. I-1
Palmer, Mass. W12
Pittsburg, Calif. C11

Portsmouth, O. D2 Roebling, N. J. R5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Worcester, Mass. T6 Worcester, Mass. W20

Mandolin Wire

NewYork W3 Worcester, Mass. A7 Worcester, Mass. J4

Paper Clip Wire Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3 Buffalo W12 Chicago C6 Chicago W13 Cleveland A7 Cortland, N. Y. W11 Crawfrdsville, Ind. M8 Fostoria, O. S1

Jacksonville, Fla. M8 Kokomo, Ind. C16 LosAngeles D1 Monessen, Pa. P7 Newark, N. J. 1-1 Palmer, Mass. W12 Portsmouth, O. D2 Shelton, Conn. D5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. A7

Piano Wire

Worcester, Mass. A7 Worcester, Mass. J4

Worcester, Mass. W20

Pin Wire, Straight or Common

Buffalo M3 Chicago C6 Cleveland A7 Cortland,N.Y. W11 Newark,N.J. I-1 Portsmouth,O. D2

Shelton, Conn. D5 Struthers, O. Y1 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Pin Ticket Wire

Alton. Til. L1 Buffalo M3 Buffalo W12 Chicago C6
Chicago W13
Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Fostoria, O. S1
Holyoke, Mass. P18

Jacksonville, Fla. M8 Jacksonville, Fla. M8 Kokomo, Ind. C16 LosAngeles D1 Newark, N. J. 1-1 Palmer, Mass. W12 Portsmouth, O. D2 Worcester, Mass. A7 Worcester, Mass. W20

Pneumatic Tire Bead Wire

Akron J4 Alton, Ill. L1 Alton, III. L1
Bartonville, Ill. K4
Buffalo W12
Cleveland A7
Pittsburg, Calif. C11
Portsmouth, O. D2 Roebling, N.J. R5 Struthers, O. Y1 Waukegan, III. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. W20

Preformed Staple Wire

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3 Buffalo W12 Chicago C6 Cleveland A7 Cortland,N.Y. W11 Crawfrdsville, Ind. M8 Holyoke,Mass. P18 LosAngeles D1

Newark, N.J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Portsmouth, O. D2 Shelton, Conn. D5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Safety Pin Wire

Alton,Ill. L1 Buffalo M3 Buffalo W12 Cleveland A7 Cortland, N.Y. W11 Fostoria, O. S1 Monessen, Pa. P7 Palmer, Mass. W12 Portsmouth, O. D2 Roebling, N.J. R5 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. T6 Worcester, Mass. W20

Screen Cloth Wire (for very fine mesh)

Alton, Ill. L1
Bartonville, Ill. K4
Buffalo M3
Cleveland A7
Cortland, N.Y. W11
Crawfrdsville, Ind. M8
Fostoria, O. S1

LosAngeles D1
Palmer, Mass. W12
Portsmouth, O. D2 Struthers, O. Y1
Waukegan, III. A7
Worcester, Mass. A7
Worcester, Mass. W20

Spiral Binding Wire

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3
Buffalo W12
Chicago C6
Chicago C8
Chicago W13
Cleveland A7
Cortland, N. X. W11
Crawfrdsville, Ind. M8 Fostoria, O. S1 Holyoke, Mass. P18 Jacksonville, Fla. M8

Kokomo, Ind. C16 Los Angeles D1 Newark, N. J. 1-1 Palmer, Mass. W12 Portsmouth, O. D2 Shelton, Conn. D5 So. SanFran. Calif. C21 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6

Tag Wire

Alton, Ill. L1 Bartonville, Ill. K4 Buffalo M3 Cleveland A7 Cortland, N.Y. W11 Crawfrdsville, Ind. M8 Fostoria, O. S1

Tape Filler Wire Bartonville, Ill. K4 Cortland, N.Y. W11

Kokomo, Ind. C16 Los Angeles D1 Newark, N. J. I-1 Palmer, Mass. W12 Portsmouth, O. D2 Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. T6 Worcester, Mass. W20

Worcester, Mass. T6 Worcester, Mass. W20

TEXTILE WIRES

Card Wire

Holyoke, Mass. P18 Newark, N.J. I-1 Worcester, Mass. A7

Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Dent Spacer Wire Buffalo W12 Cortland.N.Y. W11

Fostoria, O. S1 Reed Wire Buffalo M3 Newark, N.J. I-1 Newark, N.J. I-1 Worcester, Mass. A7 Worcester, Mass. W20

Worcester, Mass. A7 Worcester, Mass. T6

Ring Traveller Wire Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20 Buffalo M3 Cleveland A7 Fostoria, O. S1 Holyoke, Mass. P18 Waukegan, Ill. A7

Steel Heddle Wire

Cleveland A7 Cortland, N.Y. W11 Holyoke, Mass. P18 Millbury, Mass. N6 Roebling, N.J. R5

Twin Heddle Wire Cortland, N.Y. W11

Waukegan, Ill. A7 Worcester, Mass. A7 Worcester, Mass. J4 Worcester, Mass. T6 Worcester, Mass. W20

Holyoke, Mass. P18

WIRE ROPE



Production men specify Roebling Preformed for longer life . . . lower costs

FOR EASY HANDLING, extra toughness and service life, there's nothing like Roebling Preformed "Blue Center" Steel Wire Rope. "Blue Center" steel—made only by Roebling—gives rope top resistance to abrasion and fatigue. And Roebling Preforming gives you a rope that spools better...doesn't tend to set or kink...minimizes vibration and whipping.

There is a Roebling wire rope of the right construction, grade and size for every type and make of rope-rigged equipment. Have your Roebling Field Man help choose the rope that will give you the best, low-cost performance. Further savings may be effected by following his suggestions on installation, use and maintenance of wire rope. John A. Roebling's Sons Company, Trenton 2, N. J.

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Atlanta, 934 Avon Ave * Cambridge, 31 Carleton St * Chicage, 5525 W. Roosevelt Rd * Cincinnati, 3253 Fredonia Ave * Cleveland, 701 St. Clair Ave, N.E. * Denver, 4801 Jackson St * Houston, 6216 Novigation Blvd * Los Angeles, 216 S. Alameda St * New York, 19 Rector St * Odessa, Texas, 1920 E. 2nd St * Philadelphia, 230 Vine St * San Francisco, 1740 17th St * Seattle, 900 1st Ave, S. * Tulsa, 321 N. Cheyenne St



Windows of Washington By E. C. KREUTZBERG Washington Editor, STEEL









Congress Tells Off FTC

Small Business To Get More? Bureau of Standards Birthday

Federal Employees Grow

SELDOM is a government agency criticized as sharply by Congress as in the recent report of the Senate Committee on Interstate & Foreign Commerce. It really flays the Federal Trade Commission. When Woodrow Wilson called on Congress in 1914 to authorize creation of the commission, he said, "The business of the country awaits, has long awaited, and has suffered because it could not obtain further and more explicit legislative definition of the policy and meaning of the existing antitrust law. Nothing hampers business like uncertainty. . . ."

FTC, says the report, has added to confusions; it has failed to clear them up; businessmen, after 36 years of FTC administration, still need something more than assurance of "the menace of legal process."

The report deals with the freight absorption bill passed by the 81st Congress and vetoed by President Truman. The veto message expressed approval of the right to absorb freight and expressed the belief that clarification of this right could be expected from FTC.

Clarification—No!—Efforts of the committee to obtain such clarification got nowhere. The committee is especially critical of FTC's failure to act on compliance reports received over two years ago from defendants in the cement case. "The court," says the report, "had ordered the reports to be filed with the commission; if the reports were not satisfactory, the commission could, and should, have so advised the court, as well as the businessmen involved."

Since FTC will not clarify the right of freight absorption, says the committee, it is up to Congress to legislate. Sponsors of freight absorption are hoping to come up with a bill that will not be vetoed after it has been passed by both houses.

15 Per Cent Higher?

Will the defense procurement agencies again be authorized, as in World

War II, to pay up to 15 per cent higher to "small business" than the prices quoted on the same goods by large corporations? That question is under consideration by Sen. John Sparkman (Dem., Ala.) and Rep. Wright Patman (Dem., Texas), sponsors of a bill to establish a Small Defense Plants Corp. It would be the counterpart of the Smaller War Plants Corp. of World War II. The bill, now before the two Banking & Currency Committees, is intended to "assure small business, the bulwark of our free competitive system, a full share in our mobilized economy." The subsidy provision, if the two authors agree on it, is to be incorporated in a revised version of the original draft

50 Years of 'Standards' ...

To help the National Bureau of Standards celebrate its 50th birthday, 25 leading scientific and technical societies will hold their 1951 conventions in Washington, headquartering at the bureau. The calendar for these meetings can be obtained from the bureau's Division of Information. When it was founded in 1901 the bureau was charged simply with jurisdiction over weights and measures.

The scope of its work today is indicated by the names of its 15 divisions: Electricity, mechanics, organic and fibrous materials, heat and power, atomic and radiation physics, chemistry, optics and meterology, metallurgy, mineral products, building technology, applied mathematics, electronics, ordnance development, radio propagation and missile development.

Bigger and Bigger ...

Federal employment is not yet up to the level that will be required before the end of 1951 to man the defense agencies—but it's moving up rapidly. Reports to the Byrd committee show that names on the federal payroll moved up in November for the fifth consecutive month. The names numbered 2,163,278 at end of November, a gain of 32,827 over October. These figures cover civilian employees only and do not include men and women in uniform.

Double Pricing Wins Test...

The U. S. Supreme Court last Monday agreed with Federal Trade Commissioner Lowell B. Mason in a double pricing dispute involving the FTC and Standard Oil Co. of Indiana.

FTC ruled in August, 1946, that Standard must discontinue selling gasoline to four large Detroit jobbers at 1½ cents a gallon less than it charged retail service stations. Mr. Mason dissented in that opinion, reasoning that a business firm can sell its goods at a lower price to one customer than it does to another if it is acting in good faith to meet competition.

The high court on Jan, 8 followed the same line of argument in reversing the FTC order. Part of Standard's case rested on the fact that its lower price to jobbers was made to retain them as customers to meet an equally low price of a competitor.

Subsidy Deals Being Arranged...

Subsidy deals to get increased production of critical and strategic minerals are being arranged by the government. General Services Administration, the responsible agency, refuses to divulge details because of secrecy requirements under the Stockpiling Act. It is known, though, that one of the contracts already negotiated calls for construction of a plant at Las Vegas, Nev., to concentrate manganese ore from the nearby Three Kids mine and that the price to be paid for 45 per cent concentrate is \$1.50 a unit at Las Vegas for contained manganese. Under study by GSA are proposals to reactivate the Nicare nickel property near Oriente, Cuba.



Pitts	burgh, Pa.	
Duq	uesne, Pa.	
Duqu	Jesne, Pa.	
	gstown, Ohio	
	on, Pa.	
	go, III.	
	y, N. S.	
Buffalo	stown, Ohio	
Gary, l		
Gary, Ir		
Monesse		
Aliquipp		
Aliquippe		1
Johnstow	n, Pa.	1
Youngstov	vn, Ohio	19
Youngstow	vn, Ohio	19
Atlanta, G	α.	19
Hamilton, (Ont.	19
Bethlehem,		191
Cleveland,		191
Cleveland, C		191:
Canton, Ohio		1915
Rotherham, E		1916 1916
Buffalo, N. Y. Sparrows Poir		1917
Sparrows Poin		1917
Warren, Ohio	ii, mu.	1917
Sheffield, Engle	and	1917
Sakchi, India		1917
Sakchi, India		1917
Buffalo, N. Y.		1917
Warren, Ohio		1918
Weirton, W. Va.		1919
Weirton, W. Va.		1919
Portsmouth, Ohio		1919
Mont-St. Martin, Fr		1919
Mont-St. Martin, Fr		919
Homecourt, France		919
Homecourt, France Denain, France		919 920
Denain, France		20
Newcastle, Australia		20
Indiana Harbor, Ind		
River Rouge, Mich.	192	
Youngstown, Ohio	192	3
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MORGAN CONSTRUCTION CO. WORCESTER, MASSACHUSETTS

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Rolling Mills Regenerative Furnace Control - Gas Producers - Air Ejectors Morgoil Bearings English Representative: International Construction Company Wire Mills 56 Kingsway, London, W.C. 2, England

1950

^{***}Mill also rolls slabs

GE's Jet Engine Plant

Lockland, O., will be the location of a test, development and research center

A TEST, development and production center to meet the increased military need for jet and turbo-prop engines is being established by General Electric Co. at Lockland, O., near Cincinnati. The program will more than triple the space now occupied in the plant. The expansion is being carried out through purchase of one building and the lease of another from Electric Auto-Lite Co., both part of the original Lockland facility and the purchase of an adjoining plot of land and construction of a two-story office and factory building.

Jet engine components will be made at Lockland. In the past, the company has not manufactured parts at this plant. It has assembled the engines from components supplied by over 280 subcontractors. GE's own components manufacturing facilities at Lynn and Everett, Mass., will be augmented by the new Ohio facilities.

Facilities to assemble engines are being expanded; space for development and engineering, commercial and executive staffs will be included. Negotiations also are underway for lease of additional unused space in the plant, to include at least part of three government-owned foundry buildings. Purchased, leased and to-be-constructed facilities at Lockland will have a total of 2,070,000 square feet of floor area.

Douglas Reopens Tulsa Plant

Douglas Aircraft Co., Santa Monica, Calif., is to reopen its Tulsa, Okla., plant for the production of sweptwing, six-jet, Boeing B-47 Stratojet bombers. According to Donald W. Douglas, company president, production will begin at the governmentowned plant when the present occupant, the U. S. Corps of Engineers, moves.

Parker Appliance Expands

Expansion of facilities for reducing its \$6 million backlog of aircraft and industrial requirements are underway at Parker Appliance Co., Cleveland. A former subcontractor, Eaton Screw Products Co., Eaton, O., was purchased for the manufacture of steel tube fittings for industrial hydraulic

Production of aircraft fittings and valves at the company's Los Angeles plant is being expanded; subcontracting is also boosting this plant's ca-

pacity. The Cleveland Valve Division is taking over space previously leased to Thompson Aircraft Products Inc., Cleveland. Another step in the program is creation of Synthetic Rubber Products Co. in Los Angeles for manufacture of molded rubber parts and O-rings. The new facility substantially duplicates the Cleveland plant devoted to making those products.

P & W Licenses Chrysler

Under a license granted by Pratt & Whitney Aircraft Division, United Aircraft Corp., East Hartford, Conn., Chrysler Corp., Detroit, is to manufacture the J-48 Turbo-Wasp jet engine for the military service. It will be built in a plant to be constructed near Detroit.

Carrier Builds for Defense

Carrier Corp., Syracuse, N. Y., will build a \$3,250,000 plant to manufacture an undisclosed type of product for the national defense program. The 247,000-square foot plant will be ready for operation by early spring and was originally planned for manufacture of lighter types of air conditioning equipment.

Blaw-Knox Division Expands

Lewis Foundry & Machine Division, Blaw-Knox Co., Pittsburgh, is undertaking an expansion and modernization program to increase the output of rolling mill machinery. The \$1 million program will include plant changes, addition of new equipment to permit handling of heavier types of rolling mill machinery, and an increase in overall capacity.

California Firm Reorganizes

Diversified Metal Products Co. is new name of Machinery Mfg. Co., Los Angeles, now reorganized. Maintaining manufacturing facilities at 5125 Alcoa Ave., the company is developing several machine tools, production of which is scheduled to begin in February.

Ohio River Steel Starts Output

Full operations have been started by Ohio River Steel Corp. at the Toronto, O., plant once owned and operated by Follansbee Steel Corp. The facility has four open hearths with a rated capacity of 136,000 tons of ingots yearly.

The ingots are being shipped into conversion channels for sheet and strip production for automotive and other customers. In January, 1950, the plant was purchased from Follansbee by Kovalchick Industries Inc., Indiana, Pa., then resold to Ohio River Steel which since last fall has been rehabilitating the furnaces.

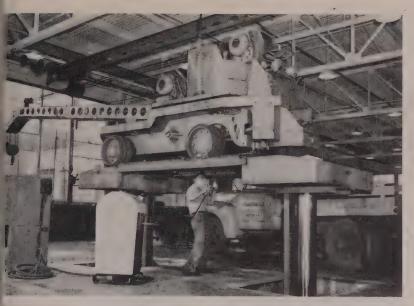
Stefco Steel Plant Sold

Cribben & Sexton Co., Chicago, manufacturer of kitchen ranges, will



ONLY THE HALF OF IT: This convoy of trucks loaded with the makings of one of twin altitude chambers for the National Advisory Committee for Aeronautics pulled into Cleveland after a four-day trip from Midland, Pa. Another convoy with the same equipment followed in a few days. The huge rings are for testing jets under simulated high-altitude conditions. They are part of the \$13.5 million addition to NACA facilities

/TEEL



ROUND-THE-CLOCK MAINTENANCE: A 24-hour automotive repair shop was placed in operation at Caterpillar Tractor Co.'s Peoria, Ill., plant. It will service and maintain the company's many trucks, railroad cars and other material-handling and transportation vehicles in a round-the-clock operation. Over 100 are employed in the prevention and care of automotive infirmities. Caterpillar wants to be sure to keep its vehicles going smoothly through its 400-acre plant. Here, a boom crane gets a lubricating job by a mechanic

take over Stefco Steel Co., Michigan City, Ind., on Apr. 1. Working force of 140 will be unchanged when the plant is converted to defense production under a contract recently awarded the Chicago company.

Rust Builds Catalyst Plant

Rust Engineering Co., Pittsburgh, will build a catalyst plant for Bay Chemical Co., a division of Morton Salt Co., at Weeks, La. Product made is used in high octane gasoline catalytic cracking processes and is to be made by a process developed by Bay. Process design will be furnished by Rust Process Design Co., a Rust subsidiary.

Merger Plans Abandoned

Proposed merger of Carborundum Co., Niagara Falls, N. Y., and Minnesota Mining & Mfg. Co., St. Paul, Minn., has been abandoned. Carborundum instead will institute a program of diversification and plant modernization.

Company's intention is to enter other fields with products that would be in demand during lean periods for heavy industry; the proposed merger appeared to be the answer to this objective. Program ahead is a continuation of the modernization on which Carborundum has spent \$20 million since the end of the war.

Square D Expands, Builds

A \$500,000 addition to its main plant in Milwaukee and another facility under construction in San Francisco, along with plans to establish factories in Dallas, Tex., and another in the East, are expansion developments reported by Square D Co., Detroit. Completion of the main plant addition is expected early this year. Company also has sold its Kollsman Instrument Division, located in Elmhurst, N. Y.

To Feed Appliance Plant

Functioning as a feeder operation for the main Appliance Division plant at Mansfield, O., will be a recently acquired plant of Westinghouse Electric Corp., at Newark, O. Purchased from Pharis Tire & Rubber Co., Newark, the plant will require 300 or more employees. It will be equipped to manufacture transmission units for automatic washers. Westinghouse also bought three acres of land.

1951 Cladmetal Uses To Advance

The cladmetal industry looks to 1951 for maximum use of its product in manufacture of some jet engine and guided missile parts, plus further development of fabricating techniques in domestic appliances, says Joseph Kenney, president of the American Cladmetal Company, Carnegie, Pa.

American Cladmetal claims that Rosslyn, its stainless steel-copper bonded product, enables a saving of fifty per cent on critical nickel and chromium in the engine field. Work in the domestic field will reach such items as locomotive parts, oil burners, bearings, food processing and cooking equipment.

Inflation Hikes Defense Costs

A good measure of inflation in the period June 25 (when the Korean war began) to Dec. 1 appears in the transcript of the Senate Appropriations committee in connection with the \$20 billion supplemental military appropriation.

In that period Navy buying prices on typical items of procurement rose as follows: Tires 38.3 per cent; wire rope 100 per cent; smoke shells 55.8 per cent; Bailey bridges 37 per cent; height finders 38.9 per cent; wool serge 39.8 per cent; parachutes 51.7 per cent.

Industrial Expansion

Up in 1950, it is expected to go to an even higher level this year

BUSINESS will spend a record \$21.9 billion for new plant and equipment in 1951. This is one-fifth greater than the 1950 outlays and one-seventh above the 1948 peak. The estimates are based on a joint Department of Commerce-Securities & Exchange Commission report.

Manufacturers will account for about two-thirds of the planned increases in expenditures. They will add \$10.6 billion to facilities this year, or \$2.6 billion more than they spent in 1950.

Iron and steel companies will double their expansion outlays. Substantial increases also will be made by the chemical industry, railroads, mining and transportation companies and utilities.

Upswing Goes On—Substantiating the findings of the Commerce-SEC report is R. D. Wood, president of the American Institute of Steel Construction.

He predicts an upswing in construction of war production facilities, provided scarce building materials are allocated for these projects.

Mr. Wood says fabricating companies now have enough orders to keep the industry busy for 7 or 8 months if steel is made available. Fabricators could use 3 million tons in 1951, as compared with less than 2 million tons in 1950.

January 15, 1951



Hyatt says "Thank you"

Together we've worked through fifty-eight busy and pleasant years—but the last one, thanks to you, was the greatest in Hyatt's history.

Seems as if all Hyatt users moved ahead with the big production parade in agriculture-textiles-petroleum-highways-automotive-railroads-aviation-steel-material handling and numerous other fields.

The resultant increased orders for Hyatt Roller Bearings, we deeply appreciate. And at the same time we are equally happy over the continued and ever-growing preference for Hyatt precision production and outstanding performance.

In anticipation of your future demands for like workmanship and service, we are constantly providing improvements in our product design, application and manufacturing facilities.

So with our fifty-ninth year ahead, we want all of our old friends, and new, to know Hyatt not for our "age" but for our "experience" as . . . the largest manufacturer of straight cylindrical roller bearings in the world.

HYATT BEARINGS DIVISION, GENERAL MOTORS CORPORATION

Harrison, N. J., Chicago, Detroit, Pittsburgh, Oakland, Calif.

HYATT ROLLER BEARINGS

Mirrors of Motordom

A war fuels diet for autos may force engine design changes to stomach the lower grade gasolines. Problems to be overcome include vapor locking and evaporation

DETROIT

WAR GASOLINE will mean auto engine design changes, the Society of Automotive Engineers was told last week at its annual meeting in Detroit.

The petroleum industry can produce wartime motor fuels with satisfactory antiknock qualities, but such fuels may have greater volatility. That gasoline will have to do for civilian autos if the military needs the most of better grades for reciprocating or turbine power plants.

Make Shift-Design changes, Socony-Vacuum Laboratories people say, should be aimed at overcoming engine operating difficulties that accompany use of fuels with lower vapor pressure characteristics. The difficulties would take the form of vapor locking, excessive fuel tank and carburetor evaporation loss and extended duration of warm-up. The engine design changes suggested involve reduction of carburetor float-bowl temperatures, use of cooler intake manifolds, hot-spot heat applications to accelerate warm-up, placing pressure caps on gasoline tanks and installing fuel pumps near or in fuel tanks.

A few of the SAE topics were of a highly military character, particularly those dealing with aircraft power plants and problems of diesel engine operation in -65 degree temperature.

Several papers dealt with the need for building greater stamina into automotive parts. Many more, however, come under the heading of "business-as-usual-if-possible" dissertations.

Aluminum Auto Bodies Ahead?

One SAE paper would attract wider interest if normalcy were ahead for the auto industry. It sums up the joint efforts of four companies in the production of an all-aluminum passenger car body, designed to use mass production techniques and tools with little modification. No freak or purely experimental design like that of General Motors' Le Sabre (STEEL Jan. 8, p. 39), this adventure in all-aluminum automobile body fabrication on a commercial basis might have been adopted soon if sufficient aluminum could have been obtained.

Engineering, fabrication and as-

Auto Truck Output

U. S. and Canada 1950 1949 January 609,882 445.092 February ... 505,593 443,734 March 610,678 April 585,705 543,711 569,728 May 732,161 508.101 June ... 897,856 623,689 July 746,771 604.351 August 842,304 678,092 September . . 760,808 657,073 October 795,918 601,021 November . . 633,678* 475,454 December . . 659,958* 384,318

Weekly Estimates

	AA.	C	C.M	13	Estimat	es
Week	Ended				1950	1949
Dec.	16				169,480	86,226
Dec.	23				160,912	116,567
Dec.	30				135,229	113,026
					1951	1950
Jan.	6				100,337	116,768
Jan.	13				115,000	155,164
			E	sti	mates by	

Ward's Automotive Reports

* Preliminary.

sembly of the car were discussed by

C. J. Schmidt of Goodyear Aircraft Corp.; choice of aluminum alloys and gages was told by J. H. Dunn, Aluminum Co. of America; the spotwelding techniques were outlined by E. J. Zulinski of Progressive Welder Co.

Two Advantages—E. C. De Smet, Willys-Overland Motors Inc., says aluminum offers two major advantages for automobile bodies: Weight saving and improved resistance to corrosion. No serious difficulties are offered in the forming and processing of the light metal. As to cost, the metal's other advantages compensate for the higher cost of material and processing.

The body design selected for the experiment was a reasonably conventional coupe, mounted on a standard jeepster steel chassis to permit direct comparison between performance of the aluminum body and a similar one in steel. The complete coupe body, says Mr. De Smet, contained 287 pounds of aluminum. The addition of standard steel hardware items such as hinges, locks, handles and window regulators, which were used as a matter of expediency, brought the body-

in-white weight to 312 pounds. A similar all-steel body would weigh 600 pounds. When the car was completed, gas tank filled and all appurtenances attached its weight was 2406 pounds, 11 per cent less than its steel counterpart would have weighed.

Low Gravity Center—Some of the notable advantages of the aluminum body, according to him, are: "The lighter body has lowered the center of gravity of the vehicle. The doors and deck lid are lighter and easier to handle. The corrosive-resistant properties of aluminum under the attack of the elements, the abrasive effect of road dirt and pebbles and the alkaline reaction of chemicals upon the highways will prove the superiority of this material throughout the life of the vehicle."

Two aluminum bodies were built to determine which alloy would be superior. The two alloys used were 48 and Alclad 24-S.

Trial and Error—A few structural parts in each body were made of 61S alloy. This material takes on high and uniform properties in heat treating, has good weldability and corrosion resistance and is slightly less costly than Alclad 24S, but it requires an aging operation to obtain the best properties in parts which go through forming operations.

In sheet gages, the aluminum body had to be comparable in rigidity and strength to one of steel. Furthermore stiffness of the panels was dictated by proper "feel", comparable to that of steel. To get this feel and avoid stiffeners on flat body panels, aluminum gages were about 41 per cent thicker than steel.

Joiner—Resistance spotwelding appears to be the most suitable method for economical and fast joining. Although portable equipment was not available for this experiment four portable welding guns with a variety of adaptors or jaw extensions would fit all sections involved. Development of such equipment was not warranted for this project, but the needs are understood and presumably would pose no problem.

The parts for the prototype bodies were formed in drop hammer dies. For quantity production, aluminum body panels and parts can be readily produced in conventional iron and steel forming dies. The die material should not be porous and should be polished to prevent scratching. Suitable lubricants are needed to en-

courage free flow of the material while forming. To form compound curves the material is displaced rather than stretched or drawn.

Plymouth Makes 1951 Debut

First of the 1951 Chrysler-built cars was introduced last week when the new Plymouth made its debut. Retaining the roominess and silhouette of previous models, the new model is distinguished by its grille, which is only slightly peaked in the center in contrast with the definite bow shape which has identified the car for several years previously. Three vertical members, two of which coincide with the bumper guards, also give it a new look.

Most of the body change is confined to the front part of the car. Redesigned hood and front fenders soften angular lines and also permit the driver to see the road nearer to the car. Better vision all around results from narrowing of the windshield pillars and extending the glass area in front and rear windows.

On the mechanical side a number of other changes have been made. Windshield wipers are electrically operated, thus are not subject to speed fluctuations or complete stoppage during rapid acceleration. No more slowing down until the window becomes clear.

Generator output has been raised to 45 amperes, up five, to provide greater capacity for accessories. Hand brake "T" control handle is positioned for greater accessibility. Retained is the six-cylinder 97-horsepower engine with 7 to 1 compression ratio, combination ignition-starter switch, automatic electric choke and safety-rim wheels.



GMC's 1951 ONE-HALF TON PICKUP TRUCK
... ventipanes for controlled ventilation

Trucks Get Color Conscious

Catch color names are not restricted to passenger cars this season. The 1951 light truck line of GMC Truck & Coach Division is endowed with what the division terms "show job" colors, having been picked up from the special paints on GMC trucks used for show purposes. These carry the names twilight blue, Miami sand, polar grey and mahogany brown.

Of much greater significance, are the beefed-up characteristics of the new trucks. Horsepower of the two engines used in this light-truck line has been increased by four; the 228 cubic inch engine now developing 100 horsepower at 3400 rpm while the 248 turns out 114 at 3600 rpm. Heavier axle rating is given to all models of the 280-22 through the 350-24 series. More powerful brakes are also fea-

tured. On the 100-22 model duo-servo brakes are installed. On other models in the light line the front brakes are enlarged and rear brakes now have twin hydraulic cylinders. Window ventipanes for controlled ventilation are also introduced in the new models.

Olds To Build Tank Guns

Oldsmobile will make high velocity tank guns for medium tanks. These probably will appear on the mediums which Chrysler will build in Newark, Del. The guns will be produced in a new building now under construction and originally intended for steel storage and plant engineering shops. The plant will have about 200,000 square feet of floor space and is scheduled for completion this spring.

About 200 workers will be used at the outset, but eventually about 1300 will be employed on the operation. Oldsmobile will fabricate the breech ring, breech block and tube. The other parts will be subcontracted.

More than 200 machine tools will be required. These will include turning and boring lathes, rifling and honing machines, milling and broaching machines and grinders. Some heat treating equipment will also be needed.

The Ordnance Corps has placed orders for over \$3 billion worth of vehicles and parts since July 1, the Commanding General of the Ordnance Tank-Automotive Center in Detroit has announced. Nearly \$1 billion of this total has been placed with small manufacturers and dealers directly while hundreds of other small businesses are acting as subcontractors, he said.



1951 PLYMOUTH FOUR-DOOR CRANBROOK SEDAN . . . still retained: The silhouette of previous models

You Can't Buy A BETTER BEARING

The know-how
of bearing making
can't be found
in books.
It's been accumulated
at New Departure
for generations
like folk lore.





Nothing Rolls Like a Ball...

NEW DEPARTURE BALL BEARINGS

NEW REPARTURE - DIVISION OF GENERAL MOTORS A BRISTOL COMMECTICUT

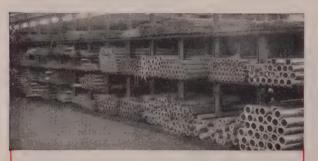
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Ready for delivery now — from warehouse stock!

Two TIMKEN® wear-resistant steels that do 90% of your hollow parts jobs!

If you need steel tubing in a hurry for making hollow parts, let Timken® 52100 and "Nickel-moly" help you out. These two general purpose steels offer good hardenability and wear resistance. Between them, they can do nine out of ten of your hollow parts jobs. And they are available from Timken in warehouse quantities for immediate delivery.

Write for free stock list now. And remember, you're sure of uniformity in both these steels—from tube to tube and order to order—because of Timken's rigid quality controls. The Timken Roller Bearing Company, Steel and Tube Division, Canton 6, Ohio. Cable address: "TIMROSCO".



1. 52100 TUBING

A high carbon chrome steel. A direct quenching steel which gives through hardness in moderate sections. Can be heat treated to file hardness and tempered back to any desired point. Frequently may be used in place of more expensive steels. Typical uses include: aircraft parts, slitter knives, bearing races, collets, pump parts, bushings. Available in 101 sizes, ranging from 1" to 10½" O.D.



2. "NICKEL-MOLY" TUBING

A low carbon nickel-moly steel. A carburizing steel which gives high surface hardness with a tough core. Has exceptional stamina and shock absorbing qualities when heat treated. Used for: piston pins, bearings, sleeves, knitting machinery, farm equipment, pump parts, bushings, perforating guns. Available in 52 sizes, from 1.389" to 10.223" O.D.





TIMETON STEEL

and Seamless Tubes

Specialists in alloy steel—including hot rolled and cold finished alloy steel bars—a complete range of stainless, graphitic and standard tool analyses—and alloy and stainless seemless steel tubing

The Business Trend

We're travelling an economic path strikingly similar to that followed in early 1941, but there are important differences: Now we've higher prices and output

"INDUSTRIAL activity enters the new year at the highest level in history, and there is every indication that the present peak production pace will continue for some months. In those lines connected with defense, output is expected to advance still further."

Those words are about as true today as they were when they appeared in this economic trend department on Jan. 13, 1941.

Ten years ago STEEL's industrial production index stood at 115.7. For the week ended Jan. 6, 1951, it hit a preliminary 191 per cent of the 1936-1939 average. A decade ago steel ingot operations were at 95.5 per cent of theoretical capacity. Today they're more than 100 per cent of the potential, and the weekly capacity is now 1,928,721 tons compared with 1,618,313 tons ten years ago in 1941.

Car and truck production in the U. S. and Canada in the week ended Jan. 4, 1941, was 76,700. In this week

ended Jan. 6, 1951, assemblies totaled 100,337.

Carloading Rise in 1950 . . .

Loadings of revenue freight on American railroads totaled 38,899,523 cars in 1950, says Association of American Railroads. That was 8.3 per cent more than in 1949 and 6.5 per cent more than the 36,357,854 cars loaded in 1940.

The average freight train achieved a record transportation output in 1950 equivalent to moving more than 20,000 tons of freight one mile in an hour. That was nearly 14 per cent above the peak output during World War II and almost three times as much as it was 30 years ago.

Estimated net income of Class I railroads in November, 1950, after interest and rentals, amounted to \$86 million compared with \$54 million in the same 1949 month. Net income for the first 11 months of 1950 was estimated at \$662 million compared

with \$352 million in the corresponding period of 1949.

Corporate Formations Slip ...

Fewer new businesses were incorporated last November than at any time since September, 1945, immediately following the close of World War II, says Dun & Bradstreet Inc. Corporate formations during November totaled 6256, 7.8 per cent less than the October figure of 6782 and a drop of 7.4 per cent from the 6755 recorded in November, 1949.

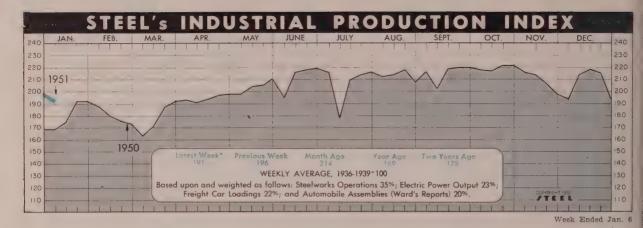
Stock corporations chartered during the first 11 months of 1950 reached 86,145. That was a gain of 11.0 per cent over 1949's figure of 77,634 for the same period, but it was a drop of 2.9 per cent from the 88,680 in the first 11 months of 1948 and 29.9 per cent less than the record number of 122,922 established in the comparable 1946 period.

Instalment Credit Down ...

Consumer instalment credit outstanding declined \$74 million in November to \$13,319 million at the month end, the Federal Reserve Board estimates. The November de-

BAROMETER	S of BUSINESS	LATEST PERIOD*	PRIOR WEEK	MONTH AGO	YEAR AGO
Steel Ingot	Output (per cent of capacity)†	101.0	98.0	101.0	93.5
	ver Distributed (million kilowatt hours)	6,602	6,479	6,909	5,685
INDUCTOV Bituminous	Coal Production (daily av.—1000 tons)	1,517	1,825	1,567	1,042
INDUSTRY Bituminous Petroleum I	Production (daily av.—1000 bbl)	5,788	5,768	5,755	4,926
Construction	Volume (ENR—Unit \$1,000,000)	\$154.2	\$111.2	\$484.9	\$323.4
Automobile	and Truck Output (Ward's-number units) .	100,337	135,229	162,757	116,768
*Dates on	request. †1950 weekly capacity was 1,928,721 net tons. 1949	weekly capacit	y was 1,843	.516 net tons.	
Freight Car	Loadings (unit—1000 cars)	620†	602	767	507
Prinings Fo	ilures (Dun & Bradstreet, number)	144	125	176	161
	irculation (in millions of dollars)‡	\$27,685	\$27,916	\$27,759	\$27,551
Department	Store Sales (changes from like wk. a yr. ago.); ry. ;Federal Reserve Board.	+21%	+17%	-19%	-3%
Bank Cleari	ngs (Dun & Bradstreet—millions)	\$17,893	\$14,486	\$17,679	\$14,292
Federal Gro	oss Debt (billions)	\$256.2	\$256.7	\$257.0	\$256.9
Bond Volum	ne, NYSE (millions)	\$20.9	\$22.8	\$25.3	\$28.7
FINANCE Stocks Sale	s. NYSE (thousands of shares)	14,351	14,128	11,813	9,039
Loans and I	investments (billions)†	\$71.8	\$71.4	\$69.9	\$67.0
	es Gov't. Obligations Held (millions)† banks, Federal Reserve System.	\$33,719	\$33,854	\$32,984	\$37,469
STEEL's Wei	ghted Finished Steel Price Index††	167.89	167.89	167.76	156.13
	nferrous Metal Price Index‡	248.1	246.9	242.2	161.5
- PRICEC - PRICE	dities†	176.7	176.0	172.7	151.1
Metals and	Metal Products† f Labor Statistics Index, 1926=100. \$1936-1939=100. \$1936-1939=100.		184.1	183.3	167.7

January 15, 1951 91



crease compared with increases of over \$300 million in each month from May through September, 1950.

Outstanding instalment credit usually expands seasonally in November. Most of the decline in the month is attributable to a drop in automobile sale credit. Instalment sale credit for the purchase of other durable consumer goods and instalment loans also contracted slightly.

An \$85 million increase in noninstalment consumer credit offset the decline in instalment credit, and total outstanding consumer credit at the end of November was estimated at \$19,412 million, about the same as a month earlier.

Charge account balances outstanding increased only \$36 million in November compared with an average rise of more than \$200 million during that month in preceding postwar years.

Employment Declines...

Overall U.S. employment declined by about 1 million workers in the month ended Dec. 9, the Commerce Department reports.

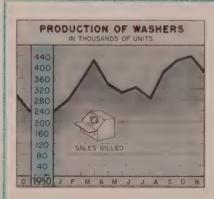
The drop to 60,308,000 is attributed to farm workers leaving the labor force at the end of the crop season. The Dec. 9 employment figure compares with total employment of

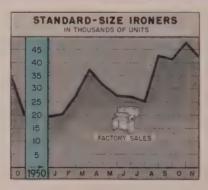
58,556,000 a year earlier. Nonagricultural employment rose from 53,-721,000 in November to 54,075,000 in December. That reflects the usual pickup in nonfarm activity before the Christmas holidays.

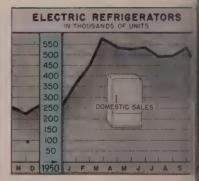
The number of unemployed workers remained about unchanged at 2,229,000 in the November-December comparison. A year ago there were 3,489,000 unemployed workers reported.

Wholesalers' Volume Up ...

Sales of service and limited function wholesalers totaled \$6871 million in November, says the Office of Busi-







Household Washers

Sales Billed-Units

	1950	1949	1948
Jan.	 . 275,576	172,400	360,445
Feb.	 . 342,967	201,300	367.909
Mar.	 . 423,802	242.500	408,512
Apr.	 . 333.072	192.500	402.257
May	 . 304.640	211.700	377.895
June		260,700	392,496
July		200,900	326.181
Aug.		323,789	362,169
Sept.		357,281	433,919
Oct.		333.728	382,400
Nov.		298,717	319,300
Dec.		237.591	183,700
DCC.	 	201,001	100,100
Totals	 	3,033,106	4,317,183

American Home Laundry Mfrs. Assoc.

Standard-Size Ironers

Factory Sales-Units 1950 1949 1948 20,300 27,600 37,800 31,600 28,300 28,400 23,800 18,100 40.192 51,651 53,686 47,319 Apr. 27,400 27,100 25,100 42,700 May 19.500 21,100 17,700 32,300 June Aug. 27,700 36,045 35,000 19,400 Sept. Oct. Nov. 41,400 47,500 37,308 38,517 42,000 307,345 476.860

American Home Laundry Mfrs. Assoc.

Electric Refrigerators

	D	omestic	Sales-Units	
		1950	1949	1948
Jan		264,002	380,853	272,121
Feb.		450,751	337,424	281,580
Mar.		572,691	369,216	338,109
Apr		531,498	324,370	330,720
May .		528,506	330,753	317,763
June		534,489	296,199	373,115
July .		490,802	315,444	351,094
Aug.		496,486	307,622	281,345
Sept.		512,125	309,429	344,260
Oct		399,330	252,580	380,854
Nov.			221,221	374,470
Dec.			259,158	330,660
Motion	-1	Ellantaina.	3 7 Com A man	

National Electrical Mfrs. Assoc.

ness Economics, Department of Com-

On a seasonally adjusted basis, total sales were slightly above the October level. The 3 per cent decline that occurred in the durable-goods groups was offset by a somewhat larger increase in sales of nondurable goods. November sales of wholesalers of durable and nondurable goods were \$2455 and \$4416 million respectively. All groups in the durable-goods category declined, except lumber and hardware, on a seasonally adjusted basis.

Inventories of service and limitedfunction wholesalers at the end of November are estimated at \$8052 million. After adjustment for seasonal variations, those stocks were up \$200 million from the October level. The entire increase occurred in durable-goods inventories.

Spending Survey Starts...

The Bureau of Labor Statistics is surveying family spending in 91 cities as a basis for revising the consumers' price index, widely used in metalworking wage agreements.

The survey takes on added importance because of the possibility that wage levels will soon be frozen in a formula that ties advances to upward swings in the index.

In the survey, more than 17,000 families chosen by lot will be interviewed between now and April. Each family will be asked to tell how much in goods and services it bought in 1950 and how much was spent.

Retail food prices rose 1.2 per cent from Nov. 28 to Dec. 1 to a level only fractionally below the alltime high of July, 1948. The Bureau of Labor Statistics estimates the index on Dec. 15 to be 216.3 (1935-1939 100), 3.2 per cent above the previous month.

TV Shutdown by Summer?

Defense demands may cause a complete shutdown of manufacturing of television sets by summer, predicts H. A. Bell, president of Packard-Bell Corp., Los Angeles.

Issue Dates of Other FACTS and FIGURES Published by STEEL:

Construction	n	.Dec.25
Durable Go	oods	Nov.27
Employ., S		
Fab. Struct		
Foundry E		
Freight Ca		
Furnaces, 1		
Transport 1		

Gear SalesJan.8	
Gray Iron Castings. Jan. 8	
Machine Tools Nov.27	
Malleable Cast Dec. 18	
Metalwkg. EmployJan.8	
Price Indexes Dec.11	
Pumps, New Orders. Jan. 8	
Purchasing Power Dec. 11	

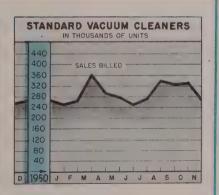
Radio, TV Aug.14
Ranges, Elec Dec.4
Ranges, Gas Dec.4
Steel ForgingsNov.20
Steel Shipments Dec.25
Steel CastingsNov.20
Wages, MetalwkgNov.27
Water HeatersDec.25



Industrial Production Index

	I	To Produ	tal ction	Iron, Steel		Non- ferrous	
		1950	1949	1950	1949	1950	1949
Jan.		183	191	203	228	179	184
Feb.		181	189	201	232	188	185
Mar.		187	184	205	233	199	183
Apr.		190	179	222	219	196	168
May		195	174	226	204	195	145
June		199	169	231	177	207	132
July		196	161	228	156	202	128
Aug.		209	170	236	178	212	141
Sept.		212	174	245	179	218	157
Oct.		217-	166	253	103	221	164
Nov.		215	173	246	144	224	163
Dec.			180		198		165
			-				
Avg.			176		187		160

Federal Reserve Board



Standard Vacuum Cleaners

Sales Billed-Units

	1950	1949	1948
Jan.	 249,150	228,769	304,273
Feb.	 263,515	241,267	311,448
Mar.	 361,014	309,897	355,415
Apr.	 292,664	252,656	306,588
May	 278,645	222,850	276,657
June	 250,190	207,354	256,071
July	 279,967	161,920	229,537
Aug.	 341.232	219,909	237,202
Sept.	 327.524	250,036	280,084
Oct.	 331,445	272,520	281,573
Nov.	 265,310	253,516	255,080
Dec.	 , , , , , , ,	265,513	273,890
FT - 4 - 1		9 000 514	2 260 850

Vacuum Cleaner Manufacturers Assoc.

Packaging Time cut 60% with Angier VPI* Wrap



Photos courtesy Whitin Machine Works

NOW only 6 minutes are required to line box with Angier VPI Wrap. This revolutionary coated paper gives off vapor that stops rust. It eliminates slushing. "Degreasing" time saved per box — one hour. Total time saved per month — 460 hours. To simplify packaging of your metal products, send coupon today!



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Representatives & Distributors in Principal Cities

Angier Corp., Framingho Wes Send VPI Facts! I in rust control of:	
Machinery - Industrial, Metal Working, Farm, Office, Construction. Electrical Machinery, Appliances, Products. (Fabricated Products.— Cutlery, Hardware, etc. Transportation Equipment—Aircraft, Auto, Naval, Railroad, etc.	Steel in process of fabrication. Instruments and clocks. Ordnance Equipment. Others:

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Mills agree that skull-cracking subjects a magnet to the roughest of service. Cautioning crane operators to "take it easy" is sage but frequently impractical advice.

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Use "basket" construction for rough service



A-2039

Men of Industry



JOHN M. YAHRES
... president, Pittsburgh Screw & Bolt

John M. Yahres, executive vice president, was elected president of Pittsburgh Screw & Bolt Corp., Pittsburgh, succeeding the late John P. Hoelzel.

Koppers Co. Inc., Pittsburgh, appointed Gordon Fox, Harry Naismith and W. B. Clemmitt divisional vice presidents in its engineering and construction division. Now a department of that division is the former subsidiary, Freyn Engineering Co., activities of which are under the direction of W. C. Snyder Jr., vice president and manager of the division's metallurgical department. The Freyn department continues offices in Chicago. Mr. Fox was executive vice president of Freyn Engineering, Mr. Clemmitt a vice president, and Mr. Naismith was vice president, Open Hearth Combustion Co., Freyn's subsidiary.

Giddings & Lewis Machine Tool Co., Fond du Lac, Wis., appointed Edgar L. McFerren chief engineer to succeed K. F. Gallimore, who continues as a director and vice president and consulting engineer. Fred C. Freund was appointed assistant works manager replacing Mr. McFerren as assistant to W. E. Rutz, executive vice president and works manager. Ray G. Commo was named supervisor of personnel and will head the industrial relations department.

Stacey Mfg. Co., Cincinnati, elected E. J. Baechle president to succeed the late A. A. Ranshaw. He has been secretary-treasurer and executive vice president and is succeeded in the latter position by Thorpe Ranshaw.



ROBERT W. SNOWDON
. . . New Brighton plant mgr., Heppenstall

Robert W. Snowdon was appointed plant manager of the recently acquired New Brighton works of Heppenstall Co., Pittsburgh.

Herbert Gordon was elected president, Sterling Bolt Co., Chicago, to succeed Charles C. Gordon, now chairman of the board. Harry Dorph, with the company since its inception, has resigned but continues on the board. Edgar B. Miller continues as vice president and general manager, and P. T. Phillips was elected vice president and continues as secretary.

Frank Hallberg was appointed chief engineer, Ross Operating Valve Co., Detroit. He was with Clinton Machine Co.

David W. Thomas was elected executive vice president and director, Dumas Steel Corp., Pittsburgh, and subsidiaries. He resigned from Jones & Laughlin Steel Corp. where he was assistant general manager of sales.

Robert J. Heggie was appointed general manager of sales, A. M. Castle & Co., Chicago, succeeding E. E. Bates, retired.

Midvale Co., Philadelphia, appointed Samuel A. Ott superintendent of melting, in charge of electric melting furnaces at Midvale as well as the open-hearth plant.

Sintercast Corp. of America, Yonkers, N. Y., appointed Robert L. Pettibone chief metallurgical engineer. A specialist in heat treatment of powder metal parts, Mr. Pettibone was research metallurgist at Sintercast.



J. B. COWAN
. . . exec. V. P., Plasteel Products

Plasteel Products Co., Washington, Pa., promoted J. B. Cowan to executive vice president. He joined the company in 1945 as personnel manager and has been serving as plant manager.

American Air Filter Co. Inc., Louisville, appointed John M. Kane manager of its dust control division of which he has been chief engineer since 1944.

Edward Keating was elected vice president in charge of foreign operations of Ekco Products Co., Chicago, and continues as assistant to the president. John Brooks was made vice president in charge of housewares sales, continuing as sales manager, and Edward Marder, another new vice president, continues in charge of expanded staple line management.

Elected vice presidents, Fruehauf Trailer Co., Detroit, are E. S. Quarngesser, Baltimore, in charge of eastern sales division; W. W. Siegrist, Detroit, in charge of the truck body division; and Harry R. Badger, Detroit, in charge of scheduling.

William W. Prince was elected a member of the executive committee of Baldwin-Lima-Hamilton Corp., Philadelphia, and John D. Dickinson was appointed assistant district manager, New York district office. George H. Lynn is general sales manager, Hamilton Division, Hamilton, O.

S. T. Mackenzie, head of the Philadelphia office of Babcock & Wilcox Co., was appointed to the newly created post of sales manager. His

headquarters are in New York. R. W. Buntin becomes district sales manager at Philadelphia.

Richard L. Mullen was elected vice



RICHARD L. MULLEN
. . . V. P. Lehigh Structural Steel

president, Lehigh Structural Steel Co., Allentown, Pa. He is also a member of the board of directors.

Edward J. Lilly was appointed sales engineer, Butterfield Division, Union Twist Drill Co. He represents the division in Philadelphia and Baltimore with headquarters in Philadelphia.

Vernon W. Kraetsch was appointed assistant comptroller, American Steel & Wire Co., Cleveland, subsidiary, U. S. Steel Corp. Appointments at its Donora Steel & Wire Works, Donora, Pa., include: Oliver W. Truax Jr., appointed superintendent of industrial relations to succeed E. Soles, retired. Howard C. Boardman succeeds Mr. Truax as labor relations supervisor. J. C. Witherspoon becomes assistant to Harold Cope, general superintendent of the plant, and is succeeded by Kenneth C. Shearer as division superintendent, open hearth.

Pickands, Mather & Co., Cleveland, announces that Henri P. Junod and Elmer C. Brunner have been admitted to the firm.

Robert J. Russell was appointed sales manager, Hardinge Co. Inc., York, Pa. Previously chief of the technical staff, he also is secretary of the company.

Appointed to direct manufacture of F-84 thunder jet fighter planes at the Buick-Oldsmobile-Pontiac Assembly Division plants of General Motors Corp. in Kansas City, Kans., are: Edward D. Rollert, manager of the new

GM aircraft program; M. H. Boden, assistant manager; Wallace E. Wilson, chief engineer; and John Q. Holmes, master mechanic.

Ab Martin was appointed manager, Ft. Wayne, Ind., Works, apparatus department, General Electric Co., to succeed C. H. Matson, named manuturing consultant of the company's small apparatus divisions staff.

Frank J. Thompson was appointed purchasing director, L. J. Mueller Furnace Co., Milwaukee. He was with Harnischfeger Corp.

Alfred F. Podesta was appointed sales manager, Atlantic branch, metal division, National Lead Co., New York.

Jones & Laughlin Steel Corp., Pittsburgh, announces changes as follows:
J. E. Timberlake, assistant general



J. E. TIMBERLAKE
...J&L general manager of sales

manager of sales, was appointed general manager of sales. H. E. Robinson, manager of sales-strip and sheet products, appointed assistant general manager of sales. C. M. Merritt, district sales manager at Detroit, appointed assistant general manager of sales. L. T. Willison, manager of sales-cold finished products, appointed manager of sales-strip and sheet products. H. M. Knobloch, Indianapolis district sales manager, appointed manager of sales-cold finished products. L. C. Berkey, Chicago district sales manager, appointed Detroit district sales manager. I. A. Mlodoch, Chicago sales office, appointed district sales manager there. G. G. Marshall, Buffalo assistant district sales manager, appointed district sales manager at Indianapolis. Roy M. Laning, Detroit sales office, appointed Detroit assistant district sales manager.

Wheeling Steel Corp., Wheeling, W. Va., elected Joseph H. Woodward II a member of the board to succeed his father, the late Alan H. Woodward

Robert H. Daisley, Eaton Mfg. Co., Cleveland, is the new president of the Detroit association, Automotive & Aviation Parts Manufacturers Inc.

George W. Starr, original vice president-sales, Ohio Ferro-Alloys Corp., Canton, O., until his semi-retirement in 1947, has now ceased all business activity and is residing at 141 High St., Canfield, O.

Ernest R. Schmidt and Raymond F. Littley were elected vice presidents of Budd Co., Philadelphia. Mr. Schmidt is in charge of manufacturing to succeed Warren H. Farr, who resigned but continues as a director. Mr. Littley is in charge of sales, automotive products.

Howard H. Blouch joined Chromium Corp. of America, Cleveland, as sales manager, Cleveland plant. He was with Heil Process Equipment Corp.

John T. Kiley, executive vice president, James Flett Organization Inc., Chicago, becomes president to succeed James Flett, founder of the company, now chairman of the board.

Paul M. Arnall succeeds Frank P. Rhame, resigned, as president and general manager, Lunkenheimer Co., Cincinnati.

Burton W. Lang was appointed vice president, AP Parts Corp., Toledo, O. He continues as director of purchas-



BURTON W. LANG
. . . AP Parts Corp. V. P.

ing and engineering and also continues supervision, excluding sales, of the Miracle Power Division.

Carl Brooks, eastern manager of Gen-



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E. O. CLARK
. . . industrial products at Vickers

eral Dry Batteries Inc., Cleveland, was named general sales manager.

E. O. Clark was promoted to industrial products sales manager for Vickers Inc. and has moved to Detroit to assume these new duties. He has been district manager with offices in Worcester, Mass., for the last ten years, and is succeeded there by J. C. Carpenter.

Ray E. Kalmbach was named general manager, Wilson Foundry & Machine Co., Pontiac, Mich., a subsidiary of Willys-Overland Motors Inc. William A. Hambley was appointed sales manager.

John P. McLean was appointed manager, Buffalo district sales office, Republic Steel Corp., to succeed C. A. Cherry, resigned.

Kenneth M. Allen was elected a director of Rockford Machine Tool Co., Rockford, Ill.

John A. Moreland Jr., formerly with Wadell Equipment Co., Garwood, N. J., was appointed manager, automotive sales division, Hunt-Spiller Mfg. Corp., Boston. He succeeds Gordon L. Leach, resigned.



FRANK A. STROUCE
...Bethlehem mgr., fabricated steel construction

Frank A. Strouce was appointed general manager, fabricated steel construction, Bethlehem Steel Co., Bethlehem, Pa., to succeed the late E. J. Paulus, and Walter E. LaBelle was appointed assistant general manager. Frank R. Barnako succeeds Walter F. Ames, retired, as manager of compensation and safety.

Edward D. Dessiston was appointed general manager, Crossman Arms Co., Rochester, N. Y. Charles Meng was named production manager.

Charles S. DeMuth, assistant treasurer and manager of sales, Lyon, Conklin & Co. Inc., Baltimore, and associated with the company 59 years, has retired.

Leon S. Kuhn is the new manager of sales for Bethlehem Pacific Coast Steel Corp.'s Portland, Oreg., district.

Charles G. Eschenbach was appointed assistant director of personnel, Chrysler Corp., Detroit, to succeed the late C. B. Cornell.

J. E. Vaughn was elected vice president in charge of sales, Standard Railway Equipment Mfg. Co., Ham-



FRANK R. BARNAKO
. . . mgr. of compensation-safety, Bethlehem

mond, Ind., with jurisdiction over all sales in the United States and Canada. S. L. Beymer was elected vice-president and executive assistant to the president.

E. Preston Calvert was appointed director of public relations, Pullman-Standard Car Mfg. Co., Chicago. Hugh W. Foster was named advertising manager.

George E. Tate was elected treasurer, Federal Foundry Supply Co., Cleveland.

Donald M. McGrath was appointed general manager, Red Bank Division, Bendix Aviation Corp., Red Bank, N. J. He was assistant director of sales and service for the Eclipse-Pioneer Division at Teterboro, N. J. He succeeds W. W. Fisher, named general manager of a newly created division at Davenport, Iowa.

Ray F. Sparrow was named senior vice president, P. R. Mallory & Co. Inc., Indianapolis.

Charles G. Cooper, manager of the Washington office, Cooper-Bessemer Corp., Mt. Vernon, O., was elected ϵ vice president.

OBITUARIES...

John Thrailkill, 74, for the last 25 years chief expediter, Alliance Machine Co., Alliance, O., and connected with the firm 48 years, died Dec. 27.

Carl E. Heussner, 51, an authority on electroplating and director, materials testing, Chrysler Corp., Detroit, died Dec. 28.

Arthur Davidson, 69, secretary and general sales manager, and a found-

er of Harley-Davidson Motor Co., Milwaukee, died Dec. 29.

Albert E. Quinn, 49, factory superintendent, Chicago Gear Works, Chicago, died Jan. 5.

George T. Walne, 46, vice president, General Box Co., Chicago, died Jan. 2 of a heart attack.

Bruno Witt, 64, an expert in diesel engineering and metallurgy of engines, and for the last four years associated with White Motor Co. Cleveland, died Jan. 8.

Sheldon Piper, 35, president, Huror Machine Co., Chicago, died Jan. when his private plane crashed neal Palatine, Ill.

Robert L. Hannan, 34, sales representative, Beardsley & Piper Co., Chicago, a passenger in the private plane of Sheldon Piper (noted above), was killed in the plane crash near Palatine, Ill., Jan. 5.





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Production AND Engineering NEWS AT A GLANCE

BIGGER MOLY INGOTS— Experimental production of 1000-pound ingots of molybdenum by melting compressed and sintered powder under an arc and in a vacuum is making the pure metal available for a wide range of application studies. They include (p. 106) piercing plugs for seamless tube mills, gas turbine blades, electrodes for heating molten glass, die casting dies for brass and other nonferrous metals, and components of jet engines, rockets and nuclear reactors. Addition of alloying elements increases hot strength of the metal but of course complicates fabricating problems.

DOUSING THE GLARE— Dulling the reflective surfaces of stainless steel or guided missiles, aircraft instruments and other apparatus is possible with use of a new plastic synthetic finish which adheres tightly to the metal surface. Elimination of light reflection and glare in such applications has obvious military significance. Baking temperature is 275° F for one hour.

FINGERS INSTEAD OF FORKS— Twelve spring-loaded steel fingers comprise an unusual attachment (p. 105) fitted to lift trucks for handling crated water heaters. Vertical slats in the crates push back some of the fingers, the rest protruding between the slats to engage horizontal cleats, thereby permitting the crates to be lifted, as many as three at a time. Pallets are dispensed with, fewer crates are damaged in handling, truck maintenance costs are lower and six men are now moving more crates than did a former crew of 22.

HOT BOX FOR SURE— Shipment of 15 tons of "hot" steel with full approval of the law, has been accomplished by a Canadian steel company. An ingot of this size at a temperature of 1700° F was shipped 200 miles in an insulated cast iron box bolted to a railway car. The heat loss upon receipt was 125°. The consignee does not relate whether upon opening the cast iron box he thought he had really discovered "the thing."

SELENIUM KILLS POROSITY— Degasification of induction furnace heats of stainless steel by the addition of 0.25 pound of selenium per ton has replaced (p. 116) former methods of combating hydrogen and nitrogen porosity, such as

oxidation with ore during melting or the use of inert gas injections prior to tapping, at a Michigan alloy steel foundry. The addition brings selenium content to only 0.0125 per cent which has no measurable effect on physical and mechanical properties, welding characteristics or resistance to corrosion.

MORE WORK, LESS SPACE—Electric furnaces with silicon carbide resistor elements have been installed for pack carburizing small parts going into a leading make of typewriter which, incidentally, has 2250 individual parts in its assembly. The furnaces are loaded with either 28 round or 24 square carburizing pots or 20 annealing boxes. Each alloy box weighs 73 pounds and carries a load of more than 150 pounds. The operation is claimed to yield a 50 -60 per cent increase in capacity per furnace with only a 25 per cent increase in floor space. Good uniformity of results has been observed throughout the temperature range of 1500° to 1775° F.

INTRICATE CASTING-Skill of die casters seems to grow with each succeeding new part developed. A striking recent example is the impeller for a new automatic transmission in the automotive field. It has a curved cylindrical wall from which eleven spiral blades rise at 151/4-degree angles (1 inch off center from the center of the part). Die engineers at first said the job couldn't be done but it was. Not only is any slide interchangeable with the others but a horizontal section anywhere through the blades which taper from 0.045 to over 0.25inch, shows them to be the same thickness within 0.002-inch. The shot weighs about 2 pounds and is running at better than 50 an hour.

SACRIFICE WHEELS—In analyzing grinding costs, it is well to keep in mind that the important factor is total grinding cost and not simply wheel cost, the former including labor cost and overhead charges. For example, an increase in rate of production of 10 per cent, achieved by changing to a softer, faster cutting wheel, may have a greater effect on the total grinding cost than a 20 per cent increase in wheel life resulting from the slower wearing wheel, by virtue of the higher rate of production and lower overhead per unit of parts ground.

tetalworking Outlook-p. 25 Market Outlook-p. 123

RADIOACTIVE TRACERS

Detect Soil on Cleaned Surfaces

No finishing system can be efficient unless all grease, dirt and other extraneous matter is completely removed from the metal to be plated. When is a surface clean? Here is a practical test, the most recent advance in evaluating degree of cleanliness

THOROUGH cleaning of metal surfaces is an important factor in the successful use of any finishing system. The presence of grease, dirt, and extraneous materials affects the adherence and continuity of coatings, metallic or organic.

Many manufacturers have made substantial savings in cleaning expense by adopting modern methods and properly designed equipment. Although each job generally has its own cleaning requirements, suitable practical methods are available for determining whether a surface is "clean."

One of the features of the recent 98th meeting of the Electrochemical Society, held in Buffalo, was a symposium on methods for evaluating the degree of cleanliness of a metal surface. Most recent advance in the detection of soil retained by metal surfaces after cleaning is based on the radioactive tracer technique. The process was discussed by R. E. Kamp, Monsanto Chemical Co. J. C. Harris and W. H. Yanko, also of Monsanto's research laboratories, collaborated in the development of this technique.

Radioactive Tracer Technique — Tests carried out where this method was used to quantitatively measure the degree of sensitivity of other soil detection methods were also described. The radioactive tracer method for metal cleaning evaluation is operated by combining with an oily soil a C_{14} tagged organic compound dispersible in the oil, permitting a quantitative estimate of soil removal or retention. Sensitivity of the method has been measured as $2x10^{-7}$ g/sq cm.

The soil detection method, as worked out in Monsanto Research Laboratories, involved the use of a soiling composition consisting of 1 per cent of the radioactive tracer compound, N,N-di-n-butyl stearamide in SAE No. 60 oil. Two per cent fluorescent green HW 175 per cent dye was also used in the soiling mixture. The circular test pieces used were made of No. 32 gage sheet steel; area on which the soil was spread was 2.26 sq cm. Over this area was evenly spread 2.5 mg of the soiling mixture, forming a thin but continuous layer. The test pieces were evaluated for initial activity before soiling.

Test Pieces Fully Immersed—The cleaning procedure involved full immersion of the test pieces suspended from hooks in a boiling solution of the cleaner followed by rinsing by six dips each in two sep-

arate beakers of boiling distilled water. Immersion time was varied to give pieces which had differing amounts of retained oil. The cleaning solution consisted of 5 per cent Santomerse No. 1; 95 per cent anhydrous sodium metasilicate. The concentration used was 5 per cent by weight in distilled water, employing a total volume of 35-40 ml.

Test panels after cleaning, rinsing, and drying were first subjected to the ultraviolet test described later. The second test was the determination of residual surface radioactivity.

Equipment for the radioactivity test consisted of a Geiger-Muller tube with a mica window characteristic of 2.4 mg per sq cm, with a 64 scaler, timer and sample holder. The sample holder is essentially a spring-loaded platform that can be lowered so as to insert the sample, and then raised to place it next to the window. Using the tracer technique, the sensitivity was found to be approximately $2x10^{-7}$ g/sq cm as compared to the approximate limits of sensitivity attainable gravimetrically of $5x10^{-5}$ grams.

Tests showed that the fluorescent estimation of the plate gave no indication of retained dye, yet after subtraction of the background count, counts still remained at least double to quadruple the background indicating a so-called "unclean" condition. Table I summarizes the various tests for estimation of surface cleanliness.

Water Break Test—The third test applied to the cleaned specimen to appraise the sensitivity of other cleanliness evaluation methods was the water break test. The panel was immersed in a stream of distilled water at room temperature and examined

Clean steel compared with steel coated with mineral oil as photographed under ultraviolet light. Courtesy Allied Chemical & Dye, National Aniline Div.



After this the copper plate test was applied. The est pieces were immersed for 3 minutes in a soution containing 40 g/L of copper sulphate pentalydrate plus 17 g/L sulphuric acid. Then the test piece was tested for tenacity of plate by vigorously ubbing the surface with several thicknesses of fine absorbent paper.

Data in Table II summarize the limits of sensitivty of the various test methods. Cleanliness tests can be listed from least to most sensitive as follows:

Fluorescent dve (least sensitive)

Copper plate

Water break

Radioactive tracer technique (most sensitive)

Arranged to show increasing sensitivity, based on he fluorescent dye method as unity (least sensitive) he following rating was given by Kamp.

		parati sitivit
	Sen	SILIVIL
Fluorescent dye		1
Copper plate		
Water break		11
Radioactive tracer		110

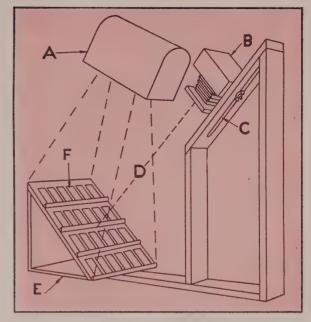
'he formula given below was used for calculating he amount of soil remaining on the test pieces from he data obtained by the radioactive method.

 $\frac{\text{Final count}}{\text{Initial count}} \times \frac{\text{mg soil}}{\text{area test piece}} = \text{Soil remaining}$

The radioactive tracer technique applied to metal leaning is more sensitive than existing methods for etermination of soil removal, is quantitative in charcter, and appears to be a distinct advance in methods of testing cleaner efficiency.

Fluorescent Method—L. F. Hoyt, National Aniline Division, Allied Chemical & Dye Corp., described a nethod for estimating soil, using ultraviolet light echniques. Mineral oil fluoresces brightly under ultraviolet light while animal and vegetable oils may be caused to fluoresce by the addition of an oil-soluble uorescent dyestuff.

This fluorescence is capable of being photographed,



Arrangement for photographing cleaned panels under ultraviolet light. (A) Ultraviolet Hanovia analytic model quartz lamp; (B) 4 x 5 view camera with Wratten K-2 filter and Tri-X film; (C) slot for camera adjustment; (D) distance from camera lens to easel, about 36 inches; (E) easel; (F) metal strips



Above—Plastic platform (left) and metal test piece (right) used in radioactive tracer technique for cleaner evaluation. Courtesy M o n s a n t o Chemical Co.

Left—Complete testing apparatus for cleaner evaluation using radioactive tracer method, showing tube assembly and scaling apparatus

TABLE I

TESTS FOR ESTIMATION OF CLEANLINESS

Test	Apparent Sensitivity	Method of Estimation
Water break	Not known, but quite sensitive	
Gravimetric	5 x 10-5 grams	Very sensitive balance
Tissue paper	Not known	Visual
Spot	1 part in 20,000	Visual and actual trial
Fluorescent dye	4 x 10-6g/cm ²	Gravimetric
Copper plate	Not known	Visual
Radioactive Tracer	2 x 10-7g/cm ²	Radioactive Tracer

thereby providing a method for recording the location and amount of oil residue both before and after cleaning. Since the intensity of the white fluorescence is proportional to the amount of oil present, and since clean metal under ultraviolet appears black or nearly so, a natural scale of measurement is established.

Under the invisible ultraviolet, a clean metal surface appears black, while an oiled surface glows with a brilliant fluorescence. This describes the extremities of the visual scale which are established by this test method. The technique may be applied to any base metal wherein it is desired to test the efficiency of the cleaning cycle.

Strips Hand-Scrubbed—To prepare uniformly-oiled metal strips for testing, 2 x 4-inch test strips were scrubbed by hand, thoroughly rinsed in alcohol and allowed to dry. Strips of wool flannel, 1% x 3% inches were saturated with the oil to be employed in the test. The oil-saturated wool strips were alternated with the metal strips to form a stack, with oil

Close-up of Geiger-Muller tube, platform and light shield as used in the Monsanto laboratory tests on cleaner evaluation. Pan-shaped test piece is inserted in lower plastic ring as shown



TABLE II SENSITIVITY OF CLEANLINESS TESTS

Sample No.	Counts/Min.* + Range	Maximum % Soil Remaining	Fluorescent Dye	Water Break	Coppe Plat
1	261+5	0.96	+	+	+
2	69+4	0.26	_	+	+
3	25+2	0.10		mp-	
4	7 + 2	0.03	-	_	-
5	0 + 2	0.008		_	-

* Background count of 18 subtracted. Original count/minute 12.650

Based on data presented by R. E. Kamp, Monsanto Chemical Conpany before the 98th meeting of the Electrochemical Society.

saturated wool strips and protecting metal plates a top and bottom.

The stack of plates was then placed between the jaws of a hydraulic press, and a pressure of 500 ps applied and maintained until no more oil oozed out. The pressure was then released and the strips removed and retained in a perfectly horizontal position until taken out of the stack one at a time for the cleaning tests.

After subjecting the metal test plate to the clean ing cycle and composition which it was desired to test, followed by rinsing and drying, the plates were placed in a rack designed so they did not touch each other, and photographed. The ultraviolet radiation was incident to the surface of the panels, at an angle of 45 degrees with the lamp about 30 inches from the midpoint of the rack. Data given in Table II were presented before the symposium to describe quantitatively the sensitivity of the fluorescent method a compared with other methods for cleaner evaluation based on the radioactive tracer technique.

Standardization Important—A. Mankowich, Aber deen Proving Grounds, emphasized the importance c rigorous standardization of every step of the procedure. This is necessary to obtain reproducibility it the subsequent evaluation of the degree of cleanliness attained. Desirable features of a soil remove test for convenience, simplicity, simulation of plar practice and correlation between the test and plar results. Main steps in a soil removal test:

Step 1—Preparation of test panels

Step 2-Soiling of test panels

Step 3—Cleaning or soil removal

Step 4—Rinsing

Step 5-Degree of cleanliness evaluation

One possibility pointed out in Mankowich's papewas that if correlation is obtained between the scremoval test and plant results, a laboratory performance type of specification may be written around the soil removal test for procurement purposes. Such a specification for alkaline cleaning compound contains no chemical composition requirements. Insteathe supplier's product is required to at least equation the performance (in soil removal) of a standard corparison compound of given composition.

Supplemented by a few physical property requirements, such as pH and corrosivity, the laborator performance type of specification, built around metal cleanliness test, may be an advantage to bor supplier and user. The supplier is not limited specific ingredients, while the user benefits from t supplier's knowledge, and is not subjected to delay.



Stacking or taking three crates from the third tier is now a oneman, palletless operation, using a fingerlift-equipped truck

Fingerlift Attachment Simplifies Crate Handling

Using A. O. Smith Corp.'s new lift truck accessory, six men now move more crated water heaters than 22 men could handle by former methods

or three at a time and places six crates on a dolly parked nearby. Then the truck takes either two or three more crates on the fingerlift, hooks onto the dolly and transports eight or nine crates to storage and stacks them.

This entire operation is carried out by one man on one lift truck. When pallets were used, two men manhandled the crates from the production line to "take-it-or-leave-it" pallets on the dollies and two more men were atop the stacks.

In another operation the fingerlift takes finished heaters directly from the production line and stacks these in boxcars in one short trip, again using only one man on one truck with no additional manpower and no use of pallets. Two men with fingerlift trucks regularly load 1600 heaters into 10 cars in $7\frac{1}{2}$ hours.

Six for Twenty-two — Even though production is higher than ever before at the Kankakee Works, the number of lift truck operators and helpers was reduced from 15 to five and the stock room repair force from seven to one.

Negotiations have been completed with Clark Equipment Co., Battle Creek, Mich., for marketing the fingerlift under A. O. Smith license.

MAJOR saving in manpower, elimination of palets, less damage to crates and lower lift truck mainenance costs are some of the benefits A. O. Smith forp, is reaping from a new method of handling rated water heaters. Lift trucks at the Kankakee, Il., plant are equipped with a fingerlift attachment which obviates the need for fork type lifting arm. Crates can be lifted singly, in pairs or in threes

Crates can be lifted singly, in pairs or in threes lirectly from the production line and transported ither to storage or directly into boxcars for immediate shipment. They are stacked in banks three rates high and stowed in boxcars two high.

Fingers Spring-Loaded—Design of the attachment mbodies a series of spring-loaded fingers mounted in a horizontal shaft so that slight pressure on the ips of any of the fingers causes them to retract by ilting backwards. A vertical apron below this shaft erves as a rest when the mast is tilted back. The vhole assembly is mounted on a side shift mechanism.

In operation the truck moves forward until the pron meets the crate. In this position some of the ingers protrude between vertical slats while others are pushed back. Then as the truck mast is raised, ingers between the slats engage a horizontal cleat or the crate top to raise it. The tilted fingers merely lide up the slats out of the way.

One Man, One Truck—At the end of the producion line the truck picks off crated water heaters two

Ready to lift, some fingers engage cleats while others are pushed back by the slats. Counting from the left, fingers 1, 2, 6, 7, 11 and 12 are back. Nos. 3, 4, 5, 8, 9 and 10 are carrying the load



ARC-CAST MOLYBDENUM

Probed for High-Temperature Utility

By J. L. HAM Climax Molybdenum Co. of Michigan Detroit

MOLYBDENUM, because of its high melting point, becomes a logical choice as a basic metal in alloys for structural high-temperature applications. The recently developed arc-cast process now makes this metal available in large sections. The process converts molybdenum powder to cast ingots. In consecutive stages, molybdenum powder is pressed into a vertical column which is sintered to increase its strength as it proceeds downward into a water-cooled mold where the metal is melted in an alternating-current arc established between the end of the formed powder electrode and the metal bath that comprises the top of the ingot.

Since applications for the pure metal are restricted by its limited strength at high temperatures, the development of molybdenum-base alloys with properties superior to those of pure molybdenum has recently been the subject of a considerable amount of experimental work. Selection of elements most suitable for addition to molybdenum requires the careful appraisal of existing information, and the judicious application of fundamental principles and theories likely to assist in the classification of the elements with respect to their effects on the properties of molybdenum.

This discussion is intended to lay the groundwork for further research on molybdenum-base alloys, to assist the engineer in recognizing immediate applications for which the molybdenum or molybdenum-base alloys now available may be suited, and to appraise the situation with respect to the possible availability of superior alloys for future applications.

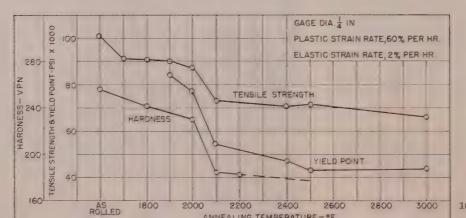
Some of the applications, presently being investigated are: Piercing plugs for seamless-steel tubing; gas turbine blades; electrodes for heating molten glass; die casting dies for brass and other nonferrous metals; certain components of turbojets, ram jets rockets, and nuclear reactors and parts exposed to corrosive chemicals.

Advantages and Limitations—Insofar as is known at present, the size of ingot which can be produced by the arc-cast method is limited only by the capacity of available electrical and vacuum equipment. Ingot up to 6-inch diameter and weighing 150 pounds are now being produced, and equipment for the production of 1000-pound ingots, 9-inch diameter, is under construction. (STEEL, April 3, p. 64.)

Production of large ingots requires high melting rates and therefore large arc currents and high-ca pacity vacuum pumps, since final deoxidation is usually accomplished by the use of carbon, and the pressure of carbon monoxide must be kept below certain limits to avoid hot shortness due to the presence of MoO₂ at the grain boundaries of the metal. In order to meet the low oxygen requirement, it is generally necessary to use molybdenum powder as low in oxygen content as is commercially available.

Certain alloying elements can be added in an desired proportion, but the range of alloy compositions which can be produced by melting in vacuur is quite limited for some elements, owing to excessive volatilization which leads to an ingot with a rough wrinkled, encrusted surface.

Many of the elements which volatilize excessivel in vacuum can be added in large amounts with littly or no loss if an inert atmosphere is employed. Since there is no satisfactory way of removing carbon more oxide when melting is accomplished in an inert gas at atmospheric pressure, it is essential to use pure starting materials and add either special deoxidizer

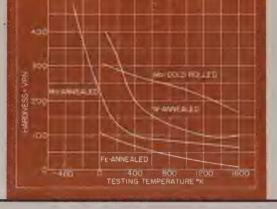


Tensile strength, yield point and hardness of ½-inch rolled rounds of arccast molybdenum annealed at various temperatures are shown here

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/TEE

Pure metal, now cast in 9-inch ingots weighing 1000 pounds, is malleable above 2200° F and reacts conventionally to annealing. Alloys complicate fabrication problems of the cast ingots



Maximum and minimum hot hardness of pure molybdenum, minimum hot hardness of tungsten, iron

the oxidation loss is insignificant. When the ingot is

or relatively large amounts of carbon. Increased carbon additions are believed to raise the limit of the partial pressure of carbon monoxide under which adequate deoxidation of the molybdenum is attainable, but the excess carbon remains in the alloy. When special deoxidizers such as aluminum and magnesium are used, residual carbon can be held to a minimum and, although some of these deoxidizing elements remain in the casting, no deleterious effects so far have been detected.

To facilitate the preparation of materials for the study of molybdenum-base alloys, small ingots approximately 2 inches diameter by 8 inches long were made in a special machine by remelting rolled bars of low oxygen content in an argon atmosphere, utilizing small additions of carbon and other deoxidizing agents to assure adequate deoxidation. By this method elements too volatile to be added during melting in vacuum could be added in appreciable quantities with adequate recovery and control of their concentrations. To be consistent throughout the investigation, alloys of elements which were not so highly volatile were also prepared in this manner.

The advent of the arc-cast process has greatly simplified the production of high-purity molybdenum and its alloys in sizes which permit extensive testing. Until recently, existing information on molybdenumbase alloys was founded almost entirely on studies of samples produced by powder metallurgy. The use of melted and cast samples eliminates the experimental difficulties connected with sintering at high temperatures, and the uncertainties of homogeneity, density, and state of equilibrium inherent in the powder metallurgy technique. The availability of cast samples, therefore, justifies a critical review of the nature of the alloy systems previously studied and invites the study of many new systems.

Properties of Unalloyed Metal—Molybdenum ingots, pure except for carbon, are made up of coarse columnar grains; nevertheless, they are quite malleable above 2200° F. After a certain amount of working and recrystallization, the metal is also malleable at lower temperatures and can be formed into useful shapes by conventional methods.

Heating for forging or rolling may be performed in an ordinary gas-fired furnace. If the mixture is adjusted to produce a slightly reducing atmosphere, forged, however, some oxidation occurs while the molybdenum is exposed to the air. Oxidation losses during hot working range from 1-2 per cent, when the metal is rolled in a conventional rolling mill, and heating is accomplished in a reducing atmosphere, to 6-10 per cent during extensive forging, when heating is accomplished in an oxidizing atmosphere. As properly deoxidized molybdenum is free from porosity, oxidation occurs only at the surface. The oxides developed can be removed readily by pickling in a bath comprising 90 per cent potassium hydroxide and 10 per cent sodium nitrite, maintained at 600-700° F.

Pure molybdenum reacts to annealing in an orthodox manner. Reheating the cast ingot has no appreciable effect on grain size, carbide distribution, or hardness. Plastically deformed grains can be recrystallized at temperatures dependent upon the amount of work, the actual working temperature, and the time at the annealing temperature. The lowest temperature at which recrystallization will start is approximately 1650°F; only severely worked metal such as cold-rolled sheet begins to recrystallize at so low a temperature. Less severely worked metal, such as bar stock, rolled from billets heated to 2000-2100° F, begins to recrystallize at about 1900° F, and recrystallization may be completed after 1 hour at 2100° F. Bars reduced 15 per cent in cross-sectional area by forging in the range 2300-2600° F will undergo extensive recrystallization on annealing at 2600-2800° F.

Pure molybdenum is relatively soft as-cast, 170 to 190 VPN, but hardens rapidly on working and may attain 300 VPN after severe cold work.

A representative curve shows the ductility, strength, and hardness of pure molybdenum. These properties, of course, depend to a large extent on the amount and type of work which has been applied. However, after working sufficiently to confer uniformity and a fine grain size, these properties depend primarily on the annealing temperature.

In most types of service, deformation of a part is undesirable and since the unrecrystallized molybdenum has been found more resistant to impact, i.e., it has a lower temperature for the transition from a ductile to a brittle fracture, full recrystallization is not recommended, except where service

January 15, 1951

Condensed from a paper delivered by the author at the 1950 annual meeting of the American Society of Mechanical Engineers, New York.

above the recrystallization temperature is anticipated, or where it is necessary to prepare the metal for further working. Recrystallization appears to be particularly objectionable for the more complicated stress systems. In the bend test on sheet, fully recrystallized molybdenum proves to be inferior, maximum capacity for bending occurring upon annealing in the range 1600-1800° F.

Good Creep Properties-The few results available at this time indicate that, above 1600° F, the creep and stress-rupture properties of pure molybdenum are superior to those of any of the cobalt, iron, or chromium-base alloys, provided, of course, that a protective atmosphere or coating is used. Comparison of molybdenum from various sources with respect to creep or stress-rupture properties may be misleading unless the specimens have received equivalent amounts of work and are in comparable states of recrystallization. Differences in purity may lead to recrystallization of some samples but not of others in the same treatment. Furthermore, before comparing samples by any elevated-temperature test, the samples should be annealed either at the testing temperature for a time comparable with that of the test or considerably above the testing temperature for a short period. This is particularly important when testing near the recrystallization-temperature range, of about 1600-2000° F, for pure molybdenum.

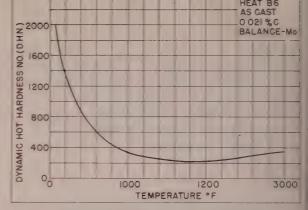
Of the various tests applied to molybdenum and molybdenum-base alloys, one of the simplest and most useful has been the Vickers hot-hardness test, for hot hardness has proved to be a convenient criterion for selecting materials likely to possess strength at high temperature and worthy of more time-consuming tests such as the stress-rupture test. At least, it can be shown that high hot hardness is a necessary—if not sufficient—property for good load-carrying capacity at high temperatures. The Vickers hot-hardness apparatus was developed for classifying chromium-base alloys.

The hot hardness of molybdenum is sensitive to working and annealing. Hot-hardness curves for pure molybdenum in its softest condition (worked and fully annealed) and in its hardest condition (severely cold-rolled) are presented in an accompanying chart. For comparison, curves for fully annealed pure iron, and pure tungsten are included. Like other metals, molybdenum in its softest condition exhibits a rapid rise in hardness when cooled below a characteristic temperature. For molybdenum, this temperature is about 400° F.

Relative hardness up to 3000° F has also been determined for pure molybdenum and a number of its alloys by means of a specially built apparatus which drops a rod tipped with a tungsten-carbide ball

EFFECT OF GAGE SECTION DIAMETER ON ELONGATION AND REDUC-TION OF AREA, 2 PER CENT TUNGSTEN-MOLYBDENUM ALLOY— 7/4-INCH DIAMETER HOT-ROLLED BAR

		Yield			Tensile	Yield		BA.
	strength,					strength.		per
Condition	psi	psi	cent	cent	psi	pei	cent	cent
As-rolled	83,200	72,200	4.0	3.8	76,400	69,500	13.0	11.7
l hr at 1800° F	77,300	70.000	3.5	3.0	77,600	69,900	23.5	18.2
l hr at 2300° F	66,490	49,600	30.5	23.6	66,700	49,900	46.0	34.9



Dynamic hot hardness of pure molybdenum

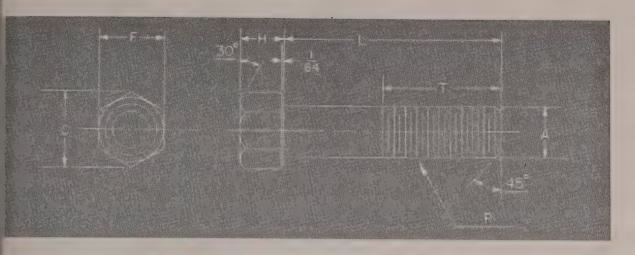
onto a disk-shaped specimen resting horizontally in an argon-filled furnace. The rod is caught on the first bounce by a solenoid activated electronically. The hardness scale is arbitrary, each value being equal to the energy of the rod divided by the volume of the impression, but these values can be correlated with Vickers numbers nicely by applying both tests to a variety of specimens. The weight of the rod is 385 grams and the height of fall 10 inches. A chart shows the dynamic hardness of pure molybdenum up to 3000° F. By comparison with this curve, the effects of various alloys on hardness up to 3000° F may be evaluated.

Need for Alloys—Although pure molybdenum is applicable for many purposes simply because it is a solid at temperatures where most metals and alloys are liquid, there are many potential applications requiring considerably more resistance to deformation at high temperatures than is possessed by pure molybdenum. Therefore, a primary purpose of adding alloys is to improve hot strength.

Alloy additions reduce the grain size of the cast metal and, although it might be expected that finegrained ingots would be less susceptible to cracking on forging, no elements have been found so far which will refine the grain to a useful extent without increasing the hardness beyond the forgeability limit.

The elements which are worthy of consideration in connection with molybdenum-base alloys have beer reduced to a reasonable number by the following general considerations. Careful examination of published information together with a certain amount of previous experience indicated that only the transition elements were soluble in solid molybdenum to any appreciable extent. It was assumed that the addition of elements which simply formed hard, brittle, insoluble compounds would not be likely to broaden the usefulness of molybdenum. Of the transition elements, many are too rare or expensive to be considered. Those which were sufficiently common to be of interest are titanium, vanadium, chromium manganese, iron, cobalt, nickel, zirconium, columbium tantalum and tungsten.

Workability of Alloys—All alloy additions which significantly increased the hardness of molybdenum complicated the problem of fabrication of the casingots. Throughout the investigation, evidence was obtained that the lack of hot plasticity was the result of intergranular weakness of the cast structure





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January 15, 1951

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STEELMAKERS

Stress Need for Scrap "Versatility" in ELECTRIC FURNACE PRACTICE

MANUFACTURERS of basic electric steel in this country enter the new year with a scrap problem facing them. Will there be an adequate supply with the nation in a sate of emergency? Will there be proper segregation of alloy elements to avoid contamination? Will charges include a higher ratio of bundled stock? These questions and others of interest to melters were answered adequately by the following authorities at the eighth annual conference of the Electric Furnace Steel Committee. AIME, Hotel William Penn, Pittsburgh, Dec. 7-9.

Importance of Scrap Is Emphasized

R. W. Farley, special mill metallurgist, and R. J. McCurdy, superintendent of No. 2 melt shop, Republic Steel Corp., Chicago.

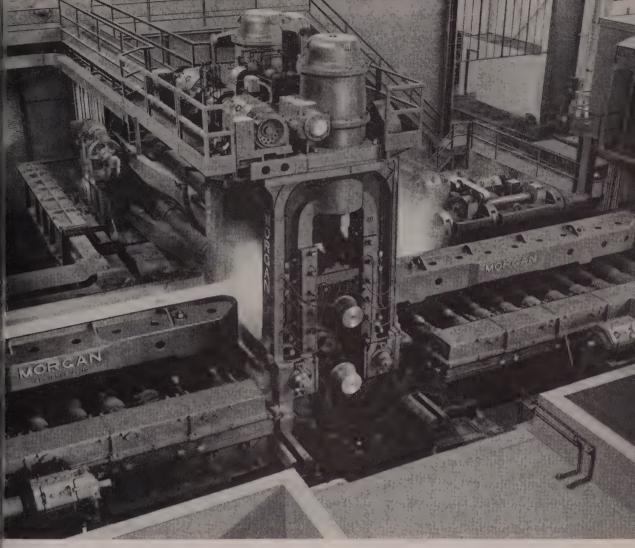
The electric furnace, its capacity greatly expanded during World War II, stands today in a most critical position. The goal is to achieve complete versatility as to all grades and qualities of alloy steels, as required in any emergency. Attainment of this goal depends in large measure upon good charging, fast melting, reliable chemical control and meltdown, and freedom from injurious contamination. These factors are all characteristic of the scrap supply.

Main sources of scrap today are: Home scrap, about 15 per cent; purchased scrap, about 85 per

cent. Home scrap consists chiefly of bloom, billet and bar crops. Of the purchased scrap, about 70 per cent is waste material coming directly from the fabricators, the direct producers of scrap. This is the most desirable form of purchased scrap from the standpoint of segregation of analysis, density and contamination. Another good item is punchings and short heavy clippings. Inasmuch as closer contro of the scrap analysis is necessary for the electric furnace than for the open hearth, it is increasingly important that the above items from known sources be channeled to the electric furnace.

In the shop of origin of this report, the best distribution is approximately equal quantities of cropand heavy scrap on the bottom, medium weight next and light weight on top. In the absence of sufficien amounts of any one of these three groups, the othe groups should be balanced to yield the same averag density. For fast melting, sizing and weight of scrap cannot be considered as independent. It is imperative that light scrap be cut into smaller pieces. In permits control of the bulk density of the lightescrap in the charging box; and, in the furnace, contributes to safety and avoids one important cause of damage to the furnace.

Average bulk density in the charging box is the chief factor in promoting high production rates. $B\epsilon$



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cause the furnace will hold a certain number of boxes, the number of boxes required for the charge regulates charging time, number of back charges, and the rate of heat absorption. In a 70-ton furnace to be charged with 170,000 pounds total, including 25,000 pounds of crops, a balance of scrap having a density of 132 pounds per cubic foot in the box can be handled in one charge. Material with a density of 109 pounds per cubic foot will require a back charge of 25,000 pounds. These figures appear reasonable, considering that with present equipment good sheet scrap can be compressed in No. 1 bundles to a density of close to 200 pounds per cubic foot. Yet in this shop two or three back charges are common.

Segregation now is taking on an usual serious aspect. It is to be viewed as two separate requirements, namely, remove nonferrous metals and sort the various grades of steel. Undesired effects of alloying upon carbon and alloy steels not requiring a particular element are to be avoided. Alloying elements at a time when supplies are becoming critical must be conserved.

High contents of cobalt are occasionally found in the melts. The source has never been traced, in spite of a serious effort to do so; but it is supposed that cobalt originated in the production of high temperature alloy parts used, for example, in jet engines. If this is so, then this item will increase with increased production of these engines, and this kind of scrap must be segregated.

Workers within the mill must be taught to maintain segregation all the way into the furnaces, to keep a sharp watch for contaminants, to load for maximum density and uniform cubage per charge, and to charge furnaces for maximum melting rate and safety to the equipment and personnel. Education is a never ending effort; more so today because its best results often have been lost by rapid turnover of labor.

Increased requirements for the electric furnace have prompted the industry to reach out for new sources, stated Ray Bromley, M. E. Solomon Co., Pittsburgh, in commenting on this paper. Dealers have had to pick the better categories of scrap from the open-hearth grades and cut them to size for the electric furnace. If proper precaution is taken to eliminate alloy bearing scrap, this should present no problem.

The scrap man has recurrently promoted segregation of complex or less desirable grades of alloy scrap, only to find that there was no ready market for the grade after it had been kept separate. Consequently, the machinery breaks down and in the end the material contaminates another grade.

Increasingly, bundles will form an important portion of our scrap supply. In 1949 the percentage of bundles was 15.8 of total scrap consumption. This was exceeded only by No. 1 steel at 20.8 per cent and No. 2 steel at 19.1 per cent. If mills persist in turning out more sheets and strip, the scrap produced in the first instance in their processing and in the second instance by their obsolescence can be no heavier than the original product.

A well prepared bundle from new clips or old ma-

terial from which alloys and nonmetallics have be separated and made to small size represents g material for the electric furnace.

Melting Techniques for Tool Steels Differ

C. F. Sawyer, Jr., plant metallurgist, Vanadii Alloys Steel Co., Latrobe, Pa.

In basic electric practice the charge is made up such a way that rapid melting and the composit on melting approximate the desired final composit as closely as practicable. The furnace is charged placing the necessary limestone on the bottom, coving this with the heavy scrap such as hot tops, in butts, and billet crops, and following with the light scrap on top. Any necessary oxides of alloying ments or slag-making materials such as burnt lare placed at about door level, so that they will among the first part of the charge to melt. This gian slag cover to help prevent undue oxidation duramelting.

In the grades that are not slagged off, amount of these slag-making constituents cannot too high a percentage of the charge or else the lavolume of slag resulting will unnecessarily prolithe heat time.

The low-carbon highly alloyed hot-work die st present problems. The charge must be properly culated to melt in at or slightly below the corcarbon content for finishing the heat, since boil down the carbon will result in a substantial loss tungsten as well as chromium and vanadium. Diing the bath with low-carbon scrap is obviously lied by the capacity of the furnace.

Carbon is added in the form of crushed electronal stirred into the bare bath before the new semaking materials are added. New slag is made of burnt lime, sand, and fluorspar, which is allo to melt before the reducing agent, coke or carbid added.

During the refining stage, it is necessary to ra the heats frequently to lessen the possibility of st fication of the bath and also to bring about ar creased contact between the molten metal and the ducing slag.

Any large additions of alloying elements to bath, such as chromium in the 12 per cent chrom grades, must be preheated if heat times are to kept within reason. Final additions of ferrotung always present a problem because of the high mempoint of the alloy.

By preheating the ferrotungsten, using fines, allowing as much time as possible between the dition and tapping, the possibility of finding sbits of undissolved ferrotungsten in the finished will be obviated. By recovering all possible allowelements from the charge, final additions are key small as possible. Ladle additions of anything small amounts of deoxidizing alloys are avoided at all possible.

The temperature at which the ingots are calclosely related to the temperature at which the is tapped. The better the ingot surface, the lithe incidence of corner cracking during hammer ging and the higher the overall recovery. Cast



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too hot will increase the occurrence of ingots that stick in the molds and shorten mold life appreciably.

Burnt Lime Requires Careful Handling

C. B. Post, metallurgist, and D. G. Schoffstall, melt shop metallurgist, Carpenter Steel Co., Reading, Pa.

Standard reducing slag in the basic electric arc furnace generally is composed principally of lime, silica and fluorspar. The moisture content of the dead-burnt lime is most important and care must be taken in packaging and transporting the material from the kiln to the furnace floor, so that it is protected against atmospheric humidity up to the time of use. For furnaces 12 feet in diameter the pebbled

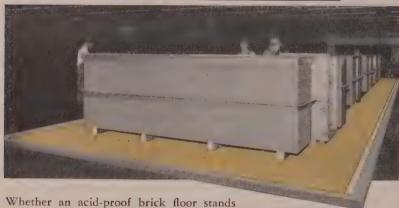
grade is desirable, and larger sizes will probably used on the larger furnaces.

Fluorspar is unique in its fluxing action in lir silica slags. To obtain the best action from fluorsp it is advantageous to keep its silica content at about 6 per cent.

It has been reported that lead and tin contamin fluorspar and thus find their way into the bath our experience does not show this.

Aluminum shot is used to assist the deoxidation refining slags on some grades of steel. Grade A a minum is used in the Carpenter Steel shops and it conceivable that if grade A aluminum were not u contamination of the bath could occur, because of





Whether an acid-proof brick floor stands up year after year without high maintenance costs depends mostly on the joints

between the bricks. The thinner the joint the better the chance for long, trouble-free life. But with ordinary bonding mortars you can't get a joint much thinner than $\frac{1}{4}$ ".

Durisite acid-and-alkali-proof cement, however, bonds brick double-tight with extra thin joints . . . $3\frac{3}{2}$ or less. Not only does Durisite make a thin, strong joint, but it makes a dense, non-absorbent joint.

Durisite is a resin-type cement, sets quickly by internal chemical reaction, is non-toxic, non-explosive, non-inflammable.

FOR A FLOOR
YOU CAN INSTALL,
AND FORGET,
INSIST ON
"U.S." TRIPLECONSTRUCTION

4" to 6" rigid concrete subbase rosion - resistant protective membrane protective membrane

The U. S. Stoneware Co. can supply all necessary materials for installation by your own workmen of a "triple-construction" acid-and-alkali-proof floor, or if you desire, we can handle the entire job, including labor and materials.

thin joints.

CALENDAR OF MEETINGS

† Denotes first listing in this column.

Jan. 15-18, Plant Maintenance Show Conference: Cleveland Public Auditor Clapp & Poliak Inc., 341 Madison A New York 17, is managing the event.

Jan. 17, American Institute of Mining Metallurgical Engineers: Western se open hearth committee, Iron and Steel sion, Los Angeles. Institute address W. 39th St., New York 18.

Jan. 18-20, Society of Plastics Engin-Annual national technical conference, E Statler, New York, Society address: Coit St., Irvington, N. J.

Jan. 21-23, Truck-Trailer Manufacturers sociation; Annual convention, Edgev Gulf Hotel, Edgewater Park, Miss. sociation address: 809 National Press B Washington 4, D. C.

Jan. 22-26, American Institute of Elect' Engineers: Winter general meeting, J Statler, New York, Institute address W. 39th St., New York 18.

Jan. 22-26, American Society of Heating Ventilating Engineers: 57th annual me and exposition, Commercial Museum, F delphia. Society address: 51 Madison New York 10. Exposition managed by ternational Exposition Co., 480 Lexi: Ave., New York,

†Jan. 24-25, National Industrial Confe-Board: Conference on mobilization, ... Astor, New York, Board address: 247 -Ave., New York 17.

Jan. 25-26, Steel Plate Fabricators Asttion: Meeting, Palmer House, Chi Society address: 37 W. Van Buren St., cago 5.

Jan. 28-Feb. 1, Associated Equipment tributors: 32nd annual meeting, St. Hotel, Chicago, AED address: 366 Michigan Ave., Chicago 1,

†Jan. 29-Feb. 1, Institute of Aerona's Sciences: Annual meeting, Hotel FN New York. Institute address: 2 E. 64th New York 21.

Feb. 1-2, Society for Advancement of agement: Annual spring management ference. Sponsored jointly with Northern University centennial committee cago chapter, SAM, address: 53 W. son Blvd., Chicago 4.

Feb. 8, American Coke & Coal Chemica stitute: Regional meeting, Congress I Chicago, Institute address: 711 14th N.W., Washington 5, D. C.

Feb. 9, National Welding Supply Associa Western zone meeting, Hotel St. Fr San Francisco. Association address: Arch St., Philadelphia 6.

CORRECTION

†Apr. 30-May 1. Association of Iron and Engineers: Spring meeting, Hotel St DETROIT, not Buffalo, N. Y., as rej in Jan. 1 issue, page 333.

ikes EASY KNIFE ADJUSTMENT

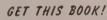


he easy knife clearance adjustment is one of the tures that Johnston & Chapman Co., Chicago, atly appreciates about their Steelweld Shear. ce they produce perforated metal of various thick-ses, which must have sharp, burrless edges, it is ential that the knives always be set with the ht clearance to make the best possible cuts.

This company has had over 50 years of experice in shearing. They point out that if the knife arance is too much, light gauge metals will bend, d if too close, a shear is unnecessarily heavily ded and the knives dull rapidly.

The knife gap of their Steelweld Shear is adjusted in a few seconds by simply turning the crank conveniently located on the right end frame. The ease and simplicity of this adjustment is impressive when compared to other shears which require the entire bed be moved and gap be set by feeler gauges.

Johnston & Chapman supply perforated metal for all sorts of purposes, including screening for coal and for television equipment. Their shear is used for cutting mild steel, stainless steel, brass and other metals from 28 gauge to 3/8 inch thick.



THE CLEVELAND CRANE & ENGINEERING CO.



115 nuary 15, 1951

alloy content of freak aluminum alloys used in recovering and making off-grade aluminum.

Our concern with refining slags has been more from the standpoint of their physical characteristics and effects on metal bath than with mere chemical analysis.

Use of any material other than burnt lime, fluorspar and silica, in making up a slag, is questionable as much from the standpoint of the effect of the compound on the physical properties of the resultant refining slag as on how much time the compound would save in turning the slag.

Carbide slags vary from a high carbide content down to a faint carbide smell when immersed in water. The trend has been to get away from the high-carbide slag types and to work to a faint carbide slag even on the higher carbon grades of steel. We feel that the high-carbide slags do not wet the metal sufficiently to effect good deoxidation of the bath.

Demand Is Toward Smaller Furnaces

R. J. Wilcox, technical director, Michigan Steel Casting Co., Detroit.

Trend with induction melting equipment has been toward small furnaces or those of intermediate size installed in batteries of two or more units, thus making available a frequent supply of metal in relatively short intervals of time.

Linings are of the conventional basic type for induction furnaces and consist of magnesia-alumina grain (Normagal) rammed in place dry, around an asbestos form, to provide a crucible having a mean diameter of 16 inches and a depth of 21 inches. Sidewalls are 3 inches thick,

Since induction-furnace heats are substantially tailor-made, consisting of a simple remelting operation, it is absolutely essential that all material in the charge are of known analysis.

After the required tapping temperature has been reached, a final degasifying addition of ferroselenium is made in the amount of $\frac{1}{4}$ -pound of ferroselenium per ton. This addition is in the amount of 0.0125 per cent Se, since ferroselenium contains an average of 50 per cent Se. It has been found to be a definite insurance against gas porosity of the reducing-gas type, as frequently experienced from high hydrogen or nitrogen contents.

Selenium degasification has replaced former methods of combating hydrogen and nitrogen porosity, such as oxidation with ore during melting or the use of inert gas injections prior to tap. It is the result of considerable experimental effort in which it was found that minor quantities of selenium are extremely effective for the prevention of gas porosity.

Extensive studies have been made in determining the effect of a minor selenium content on physical and mechanical properties, welding characteristics, and resistance to corrosion. It has been established that no measurable effect exists on such properties with selenium up to approximately 0.10 per cent Se.

Operating data on the performance of the 1000pound units in the production of 18-8 for castings are: Power consumption, 779 kwh per ton; meltime, 58 minutes per 1000 pound; average lining 110 heats per lining; refractory cost, \$4.41 per ton

Experience indicates the following approximate covery of elements going into the makeup of the I type alloys:

ELEMENT	% RECOVERY	ELEMENT	% RECOV
Carbon Chromium Nickel Marganese	99 100*	Molybdenum Columbium Selenium	91

* Because of slight losses in other elements, final analysis of rifrequently shows a higher quantity than the original percentage costion calculated.

The induction furnace is characterized by high, covery of alloys. In certain of the heat-resist types, particularly the 35 per cent Ni, 15 per c Cr type, in which a carbon content of 0.40 to per cent is desired, a loss in carbon frequently is perienced on extended holding of the heat at hetemperatures.

Equipment Makes Mining Safer

Suitable for use in underground mines where terial is mined in high stopes by room-and-parenthods are new techniques and equipment develops the Bureau of Mines. The four new types of scaling apparatus, described in report 4739 and availed from the bureau, 4800 Forbes St., Pittsburgh Pa., are:

- 1. A boom-type scaling rig with self-leveling r form constructed on a small, tractor-powered traing crane. Men working from this platform scale mine walls and roof 27 feet from the floor
- 2. A conventional fork-truck designed to provie remotely controlled working platform from when can scale to heights 27 feet above the mine fill Drills can be mounted on the guard rail of this for drilling plug holes in pillars and roofstone eye pins to support electric cables and other wire
- 3. Platform mounted on a telescoping tower structed to elevate men 65 feet above the mine fit With it men can work from the platform at heightfrom 5 to 65 feet.
- 4. An industrial gun and lightweight scaling in that have been tested for removing loose rock finding walls with varying degrees of success.

Extinguisher Carries 350 Pounds

A portable dry chemical fire extinguisher mounced by American-LaFrance-Foamite Corp., mira, N. Y., carries 350 pounds of the fire extinguing compound which is discharged at a maintage operating pressure of 200 psi by 2000 psi of dry trogen. Known as the Alfco 350 engine, it is said be the largest unit of its kind, but may be hand by two men.

Density of the dispersion of its sustained pusturized discharge cools and insulates the oper of from the heat of the fire. Discharge range is for 20 to 25 feet, enabling the operator to move up the fire and put it out with the full force of blanketing discharge.

New Products and Equipment

Band Machine Hydraulically Fed

Operating over a speed range instantly variable from 40 to 10,000 fpm is the HP-36 Hydro-Feed bandsawing machine developed by DoAll Co., Des Plaines, Ill. Throat capacity is 36 inches and work height is from 15½ inches up. Machine uses standard saw bands up to 1-inch wide. It is well guarded and has automatic synchronized hydraulic aircraft type brakes. A 10 hp drive motor with three speed transmission and overload protected Speedmaster variable drive gives a tool speed range.

Workpieces weighing 1 ton or more may be handled on the 40 x 48-inch



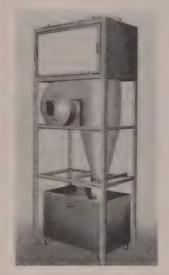
T-slotted hydraulic table that slides on 28 rollers. Table stroke is 36 inches. Infeed rate is controllable up to 18 fpm with quick return. Job selector dials and sets of guides provide for slow and high speed sawing. Band speed and tension indicating dials, converging beam work light, chip blower and dust spout for exhaust connection are new features. Check No. 1 on Reply Card for more Details

Large Capacity Dust Collector

Designed for those dust collecting operations involving large amounts of dust, lint, dirt, chips, shavings, etc., is the unit type dust collector offered by Aget-Detroit Co., 139 Main St., Ann Arbor, Mich. The model 20B30 unit uses a 3-hp continuous duty motor direct driving a paddle wheel self-clearing fan, a cyclone separator and a second stage fiber glass filter with shaker which permits the cleaned air to be recirculated within the working space.

Caster equipped roll-away bin of 9 cu ft capacity is arranged so that it

receives the bulk of the collected dust directly from the bottom of the cyclone separator. Suction capacity is 2405 cfm on a 7-inch inlet pipe. Fiber glass filter is in three sections, each in a separate steel frame

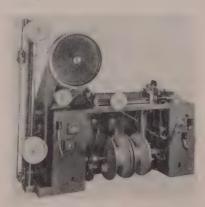


assembly for quick removal. Filter shaking lever shakes dust from all three filter sections simultaneously. Floor space required is 22 x 44 inches and overall height is 108 inches.

Check No. 2 on Reply Card for more Details

Continuous Extrusion Takeup

Built with integral capstan and tension stand is a high speed constant-tension, dual-reel continuous takeup unit for wire or cable, an-



nounced by Industrial Ovens Inc., 13825 Triskett Rd., Cleveland 11, O. Speed range is from standstill to more than 2600 fpm, with instantaneous acceleration of empty reel to synchronous wire speed as soon as crossover is made. No interruption

or slow down in the winding process is necessary to shift from full to empty reel.

All drives, for reels, capstan and traverse, are hydraulic and completely self-contained with enclosed, oil-immersed gears. Hydraulically driven traverse provides a 25 to 1 lay range. Reel mounting with demountable shaft and bearing housing carried by a heavy duty mounting on a lever-operated, tilting base permits loaded reels to be deposited gently on the floor upon the reel flanges. Unit is offered complete and also without the capstan or with separate floor mouned capstan and tension stand.

Check No. 3 on Reply Card for more Details

Wheel Equipped Extinguisher

Offered with a 150-pound power capacity for combating flammable liquid and electrical fires is a wheeled dry chemical fire extinguish-



er, made by Walter Kidde & Co. Inc., 40 E. 34th St., New York 16, N. Y. Unit is balanced to permit one-man mobility and incorporates two upright steel cylinders, the larger containing 150 pounds of chemical while the smaller holds nitrogen under pressure of about 2000 psi.

To operate, the valve on top of the nitrogen cylinder is opened, admitting the gas to the powder chamber through a normally open valve and pressurizing the dry chemical for discharge. A preset regulator maintains constant pressure within the dry chemical cylinder during discharge. On the end of a 50-foot hose carried in a bracket on the side of the powder cylinder is a discharge nozzle with stirrup type lever control with "off", "fan", and "straight",

positions for control of the powder

Check No. 4 on Reply Card for more Details

Oiling System Feed Valves

Line of angle sight feed valves made by Oil-Rite Corp., Milwaukee 15, Wis., permits a manufacturer to build his own oiling system of the pressure or gravity type at a considerably lower cost. Valves have free flow characteristics and allow flow of oil to be visually checked and closely regulated. They are available in two types, SFG single or SFM gang mounted. They're equipped with needle valve control and regulate oil flow from full to complete shut-off.

Three body sizes machined from bar stock are available, with inlet of 1/4 to 1/4-inch female pipe thread and outlets from 1/8 to 1/2-inch female pipe thread or compression fittings. Unbreakable plastic sights or glass are available for the sight chamber. In a multiple setup oil fed to each bearing can be individually adjusted and observed at one station. They can be furnished with any number ranging from 2 to 24. Female pipe thread inlet and compression fittings are suitable for 4-inch OD tubing. Cheek No. 5 on Reply Card for more Details

PICKS IT UP: Towmotor Corp., Cleveland 10, O., offers a hydraulic scoop accessory for models LT-35, LT-40, 44 and 48 lift trucks. It swiftly picks up, transports and dumps bulk materials such as coal, sand, cement, scrap. Actuated by a powerful two-way hydraulic cylinder, the accessory offers positive, finger-tip control of the angle of the scoop.

Check No. 6 on Reply Card for more Details

STARTER WITH LIGHT: Motor Sentinel class 10-023, equipped with an indicating light to show when the motor is running, is available from Westinghouse Electric Corp., Pittsburgh 30, Pa. Especially useful for starting and protecting small alternating and direct current motors used for fans, pumps, compressors, etc., it is available as a double pole switch with ratings up to 1 hp, 250 v, ac

Cheek No. 7 on Reply Card for more Details

PORTABLE PUMP: Model 2187, a close-coupled electric motor and pump unit, is introduced by Jabsco Pump Co., Burbank, Calif. Unit consists of a bronze self-priming pump with neoprene impeller with 11/2-inch inlet and outlet ports designed to accommodate standard female hose couplings mounted direct on shaft of a 1/4-hp Wagner, 1725 rpm, 115 v, 60 cycle, single phase capacitor motor.

Check No. 8 on Reply Card for more Details

ACID PROOFS FLOORS: Phenoline, made by Carboline Co., St. Louis 5, Mo., is a brush-on phenol formaldehyde coating that hardens at room temperature. It resists organic and inorganic acids, except nitric acid. It can be used on wood as well as concrete floors.

Check No. 9 on Reply Card for more Details

FAST TACKING: Improved model H2B stapling hammer, announced by Bostitch, Westerly, R. I., is designed for high speed tacking and light nailing jobs. Improvements include plating for rust resistance, new style driving lever for better balance and new type pusher to eliminate jams. Check No. 10 on Reply Card for more Details

CONTROLS TEMPERATURE: Series 4700 Atcotronic input controller, made by Automatic Temperature Control Co. Inc., Philadelphia 44, Pa., will automatically control temperature on electrically heated equipment such as furnaces, ovens, pots, kilns, etc. Based on the rate of charge and discharge of a capacitor, this circuit enables the user to "line-out" without incurring undue overshoot.

Check No. 11 on Reply Card for more Details

UNIVERSAL JOINT: Lo Friction universal joint, developed by Curtis Universal Joint Co. Inc., Springfield, Mass., is available in single or double joint form; 11/2-inch OD or larger, solid or bored hubs; round, keyed or splined shafts. It is primarily for applications where joint friction heat or kinetic energy must be dissipated rapidly.

Cheek No. 12 on Reply Card for more Details

SELF - SEALING STUD: Donear Products Co., Rockford, Ill., announces self-sealing tank studs that are arranged with pipe thread on one end and standard screw thread on the remainder of its length. Studs are provided with a hollow head for a hex wrench.

Cheek No. 13 on Reply Card for more Details

FIXTURE BASES: Three fixture bases, developed by Engineers Specialties Division, Buffalo 9, N. Y., can be used on American Optical projection comparators, Kodak contour projectors and all models of Jones and Lamson optical comparators, except model VC-14. Under-surfaces of the bases are hollowed out to give clearance for screw heads which attach the workholding fixtures, or permits easy machining for underside bearing surface if slide type fixtures are de-

Cheek No. 14 on Reply Card for more Details

MOISTURE-FREE SURFACE: Hydrolift, an original water displacing compound has been developed by London Chemical Co., Chicago 5, Ill., to insure a chemically moisture-free surface on all metals. Used as a cold dip, it instantly forms a molecular film, even in the deepest crevices, lifting the moisture to the surface where it runs off. When dry, the film is transparent and can neither be seen nor felt.

Cheek No. 15 on Reply Card for more Details

PLASTIC TUBING: Cyclon crystal clear flexible plastic tubing, introduced by Munray Products Inc., Cleveland 11, O., is a new medium for the conducting of all types of solutions in a variety of applications. Extruded to various diameters and wall thicknesses, it can be utilized interchangeably for pressure and vacuum operations.

Cheek No. 16 on Reply Card for more Details

ELECTRIC DRILLS: Models 283, 2101, 2103 and 2121 electric drills introduced by Skilsaw Inc., Chicago, 30, Ill., range in capacity from 1/2 to 34-inch in steel and up to 11/2-inch in hardwood. All models have diecast aluminum alloy housings, oversize ball bearings, needle bearings, helical gears and geared chucks. Morse taper sockets are available in place of geared chucks.

Check No. 17 on Reply Card for more Details

SHUT-OFF VALVE: A new design in shut-off valves for use in hot air applications of temperatures up to 800° F has been developed by Hydro-Aire Inc., Burbank, Calif. It has an ambient temperature range from minus 65° F to plus 700° F and operates: on voltage from 14 to 30 v, dc. Valve is normally open but will close if current fails.

Check No. 18 on Reply Card for more Details.

FOR MORE INFORMATION

on the new products and equipment in this section, fill in a card. It will receive prompt attention.

The Market Outlook

DEMAND pressure on the steel mills is mounting. Signs are appearing of an easing in civilian goods production, but there is far more commercial demand before the market than producers can handle. Meanwhile, national emergency requirements are stepping up steadily, though not to the extent anticipated. Increasing tonnages of steel moving into defense channels are intensifying shortages in virtually all civilian products.

SUPPLY—Steady deterioration in supply for the general market is indicated in the months immediately ahead. Consumers, desperate for tonnage, are scrambling all over the map seeking supplies. Gray market offerings, a large part imported steel, and conversion tonnage provide only limited relief. The mills have closed their schedules for March and are booked several weeks beyond on DO-rated orders for some products. At the same time there is a growing disposition among producers to accept more than minimum quotas of rated tonnage inasmuch as mandatory enlargement of such quotas is in early prospect. The bar set-aside already has been upped from 5 to 10 per cent.

PRODUCTS—Structural steel orders are lagging because of inability of fabricators to obtain sufficient shapes to meet all prospective requirements. Some shops are booked more than a year ahead, largely because of limited steel receipts. Pressure for plates is unabated, and is increasing, particularly for railroad cars, oil and gas lines and tanks. Slightly less pressure is noted for the light, flat-rolled products, significant of an easing in production of household appliances. But specifications continue heavy with demand far in excess of supply and with defense-rated orders gaining. Demand for galvanized sheets taxes mill capacity, while em-

ergency requirements of electrical and stainless sheets are extremely heavy.

ALLOCATIONS—With the steel shortage growing, pressure is rising for adoption of a distribution system similar to the Controlled Materials Plan of World War II. However, such action does not appear likely in the immediate future. So far as can be learned the government plans to worry along with the voluntary allocation system for the present at least. Extension of voluntary allocations to additional programs is in the offing, however. Machinery and equipment builders are seeking tonnage and large new ship requirements loom on the horizon. The petroleum industry will require a heavy volume of steel products of all kinds. Farm machinery builders have been assured they will be provided sufficient steel to maintain production at the 1950 level.

CAPACITY—Steelmakers have lifted their sights on producing capacity. Current capacity is estimated at 104 million tons, increase of 4 million tons since a year ago. Under way or projected are substantial expansions which will lift steelmaking capacity to above 115 million net tons by the end of 1952.

PRICES— All of the iron and steel markets held steady last week. Action by the economic control authorities is expected soon, but whether a rollback of steel prices is contemplated is unknown. Generally it is believed current price levels stand a good chance of being named as ceiling. Steel's weighted index on finished steel is unchanged at the revised figure of 171.92 as is the arithmetical composite at \$105.55. Pig iron is steady with No. 2 foundry, \$52.54, basic, \$52.16, and malleable \$53.27. Pending outcome of price discussions in Washington the scrap market is marking time, the steelmaking grade price composite holding at \$45.50.

NATIONAL STEELWORKS OPERATIONS HOO 100 80 1950 70 70 1949 60 60 60 40 40 30 20 / TEEL MAY JUNE JULY

DISTRICT INGOT RATES

Percentage of Capacity Engaged at Leading Production Points

Week Ended Jan. 13	Change	Same 1950	Week 1949
Pittsburgh 98	+ 0.5	98	98.5
Chicago101.5	+ 2*	98	99.5
Eastern Pa100	0	86	95
Youngstown105	1	102	105
Wheeling 95	- 1	100	92.5
Cleveland101.5	+ 0.5	98.5	96.5
Buffalo104	0	103.5	104
Birmingham100	0	100	100
New England 83	0	83	86
Cincinnati 92		96	99
St. Louis 95	+ 7.5	86.5	80
Detroit	+ 1	107	105
Western102	+ 9.5	92	
Estimated national			
rate	+ 1	94	99

Based on weekly steelmaking capacity of 928,721 net tons for 1951 and second half, 950; 1,996,268 tons for first half, 1950; 1,843,-16 tons for 1949; 1,802,476 tons for 1948. **Change from revised rate.

Composite Market Averages

	Jan. 11 1951	Week Ago	Month Ago	Year Ago	5 Yrs. Ago
FINISHED STEEL INDEX, Weight Index (1935-39 av. = 100)	ed:	171.92*	167.89	156.13	101.87
Index in cents per lb	4.657	4.657*	4.548	4.230	2.760
ARITHMETICAL PRICE COMPOSI	TES:				
Finished Steel, NT No. 2 Fdry, Pig Iron, GT	\$105.55	\$105.55*	\$103.50	\$92.86	\$58.27
Basic Pig Iron, GT	52.16	52.54 52.16	52.54 52.16	46.22 45.72	25.42 24.75
Malleable Pig Iron, GT Steelmaking Scrap, GT	53.27 45.50	53.27 45.50	53.27 45.50	47.27 26.83	26.04 19.17
- Scrap, GI	40.00	20,00	20.00	20.00	10.14

^{*} Revised.

* Revised.

Weighted finished steel index based on average shipments and Pittsburgh district prices of the following 14 representative products during 5-year base period 1935-39. Structural shapes, pidtes, rails, hot-rolled and cold-finished bars, pipe, wire, nails, tin plate, hot and cold-rolled sheets, galvanized sheets, hot and cold-rolled strip. For complete explanation see STEEL, Sept. 19, 1949, p. 54.

Arithmetical steel price composite based on same products as the weighted finished steel index with the exception of rails, cold-finished bars, galvanized sheets and hot-rolled strip.

Basic and No. 2 foundry pig iron composites are based on average prices at Pittsburgh, Bethiehem, Birmingham, Buffalo, Chicago, Cleveland, Granite City, Youngstown, Malleable composite based on same points, except Birmingham.

Steelmaking scrap composite based on average prices of No. 1 heavy melting steel at Pittsburgh, Chicago and Philadelphia.

Comparison of Prices

Comparative prices by districts, in cents per pound except as otherwise noted. Delivered prices based on nearest production point.

FINISHED MATERIALS

	Jan. 11	Week	Month	Year	5 Yrs.
	1951	Ago	Ago	Ago	Ago
Bars, H.R., Pittsburgh	3.70	3,70	3.70	3.45	2.25
Bars, H.R., Chicago	3.70	3.70	3.70	3.45	2.25
Bars, H.R., del. Philadelphia	4.18	4.18	4.18	3.93	2.57
Bars, C.F., Pittsburgh		4.55	4.55	4.10-15	2.75
Shapes, Std., Pittsburgh	3.65	3.65	3.65	3.40	2.10
Shapes, Std., Chicago	3.65	3.65	3.65	3.40	2.10
Shapes, del. Philadelphia	3.90	3.90	3.90	3.46	2.215
Plates, Pittsburgh	3.70	3.70	3.70	3.50	2.25
Plates, Chicago	3.70	3.70	3.70	3.50	2.25
Plates, Coatesville, Pa	4.15	4.15	4.15	3.60	2.25
Plates, Sparrows Point, Md.	3.70	3.70	3.70	3.50	2.25
Plates, Claymont, Del	4.15	4.15	4.15	3.60	2.25
Sheets, H.R., Pittsburgh	3.60-7	5 3.60-75	3.60-75	3.35	2.20
Sheets, H.R., Chicago	3.60	3.60	3.60	3.35	2.20
Sheets, C.R., Pittsburgh	4.35	4.35	4.35	4.10	3.05
Sheets, C.R., Chicago	4.35	4.35	4.35	4.00	3.05
Sheets, C.R., Detroit	4.55	4.55	4.55	4.20	3.15
Sheets, Galv., Pittsburgh	4.80	4.80	4.80	4.40	3.70
Strip, H.R., Pittsburgh3	75-4.00	3.75-4.00	3.75-4.00	3.25	2.10
Strip, H.R., Chicago	3.50	3.50	3.50	3.25	2.10
Strip, C.R., Pittsburgh 4	.65-5.35	4.65-5.35	4.65-5.35	4.15	2.80
Strip, C.R., Chicago4	.50-90	4.50-90	4.50-90	4.00-15	2.90
Strip, C.R., Detroit4		4.35-5.60	4.35-5.60		2.90
Wire, Basic, Pittsburgh4		4.85-5.10	4.85-5.10		2.75
Nails, Wire, Pittsburgh5		5.90 - 6.20	5.90 - 6.20		2.90
Tin plate, box, Pittsburgh.	\$8.70	\$8.70	\$7.50	\$7.50	\$5.00
PERMITATE					

SEMIFINISHED

Billets,	forging,	Pitts. (NT)\$	66.00	\$66.00	\$66.00	\$63.00	\$42.0
Wire roo	ds, 72-%	", Pitts	4.10-30	4.10-30	4.10-30	3.85	2.1

PIG IRON, Gross Ton

Deasemer, Fitts,	3 00.00	# UU. UU	@11.UU	400.00
Basic, Valley 52.00	52.00	52.00	46.00	25.25
Basic, del. Phila 56.39	56.39	56.39	49.44	27.09
No. 2 Fdry, Pitts 52.50	52.50	52.50	46.50	25.75
No. 2 Fdry, Chicago 52.50	52.50	52,50	46.50	25.75
No. 2 Fdry, Valley 52.50	52.50	52.50	46.50	25.75
No. 2 Fdry, Del. Phila, 56.89	56.89	56.89	49.94	27.59
No. 2 Fdry, Birm 48.88	48.88	48.88	39.88-42.38	22.13
No. 2 Fdry (Birm.) del. Cin. 55.58	55,58	55.58	46.08	25.81
Malleable Valley 52.50	52.50	52.50	46.50	25.75
Malleable, Chicago 52.50	52.50	52.50	46.50	25.75
Charcoal, Lyles, Tenn 66.00	66.00	66.00	60.00	33.00
Ferromanganese, Etna, Pa.188.00	188.00	188.00	175.00	140.00

^{*} Delivered, Pittsburgh.

SCRAP, Gross Ton

No. 1 Heavy Melt, E. Pa 45.00	45.00	45.00	23.50	18.75
No. 1 Heavy Melt. Chicago 45.00	45.00	45.00	27.00	18.75
No. 1 Heavy Melt. Valley., 46.25	46.25	46.25	30.25	20.00
No. 1 Heavy Melt. Cleve., 45.75	45.75	45.75	27.25	19.50
No. 1 Heavy Melt. Buffalo. 44.88	44.88	44.88	27.75	19.25
Rails. Rerolling, Chicago,, 67.00	67.00	67.00	39.50	22.25
No. 1 Cast, Chicago 62.00	63.00	63.00	38.50	20.00
COKE. Net Ton				
Beehive, Furn., Connlsvl\$14.75	\$14.75	\$14.75	\$13.25	\$7.50
Beehive, Fdry., Connlsvl 17.50	17.50	16.75	15.50	8.25
Oven Fdry., Chicago 21.00	21.00	21.00	20.00	13.00
NONFERROUS METALS				
NONFERROUS METALS				

NONFERROUS METALS				
Copper, del. Conn 24.50	24.50	24.50	18.50	12.00
Zinc, E. St. Louis 17.50	17.50	17.50	9.75-10.00	8.25
Lead, St. Louis 16.80	16.80	16.80	11.80	6.35
Tin, New York	157.00	142.00	77.00	52.00
Aluminum, del 19.00	19.00	19.00	17.00	15.00
Antimony, Laredo, Tex 32.00	32.00	32.00	32.00	14.50
Nickel, refinery, duty paid. 50.50	50,50	50.50	40.00	35.00

For key to producing companies, turn next page. Minimum delivered prices do not include 3% federal tax.

PIG IPON Grees Ton

FIG IKON Gross Ion				
	Deede	No. 2		Besse- mer
70-413-1 70 70	Basic	Foundry	able	
Bethlehem,Pa. B2	\$54.00	\$54.50	\$55.00	\$55.50
Morronia del	F. 0.00	58.79	59.29 57.63	58.13
Newark,del	56.63 56.39	57.13 56.89	57.39	57.89
Birmingham District	50.39	Q0.05	01.00	01.00
AlabamaCity, Ala. R2	48.38	48.88		
Birmingham R2	48.38	48.88		
Rirmingham 80	48.38	48,88		
Woodward, Ala. W15	48.38	48.88		
Woodward, Ala. W15 Cincinnati, del.		55.58		
Buffalo R2 Buffalo H1 Tonawanda,N.Y., W12	52.00	52.50	53.00	
Buffalo H1	52.00	52.50	53.00	
Tonawanda, N.Y., W12	52.00	52.50	53.00	
No.Tonawanda, N.Y., T9 Boston, del. Rochester, N.Y., del.	C1 D0	52.50	53.00 62.20	
Rochester N. V. dol	61.26 54.63	61.76 55.13	55.63	
Syracuse, N.Y., del.	55.58	56.08	56.58	
Chicago District	00.00	20.00	00.00	
Chicago I-3	52.00	52.50	52.50	53.00
Cary Ind II5	52.00		52.50	****
IndianaHarbor,Ind. 1-2 So. Chicago, Ill. W14 So. Chicago, Ill. Y1 So. Chicago, Ill. U5	52.00		52.50	
So.Chicago, Ill. W14	52.00	52.50	52.50	
So.Chicago, Ill., Y1	52.00	52.50	52.50	
So.Chicago, Ill. U5	52.00	54.39	52.50	53.00
Milwaukee, dei	53.89		54.39	54.89
Muskegon, Mich., del		57.98	57.98	
Cleveland District	~~ ~~	~~ ~~	×0. ×0	×0.00
Cleveland A7	52.00	52.50	52.50	53.00
Cleveland R2	52.00	52.50	52.50 54.89	54.39
Akron, del. from Cleve Lorain, O. N3	54.39 52.00	54.89		53.00
Duluth I-3	02.00	* * * *	52.50	00.00
Erie.Pa. I-3	52.00	52.50	52.50	53.00
Erie,Pa, I-3 Everett,Mass, E1 Fontana,Calif, K1		53.25	53.75	
Fontana, Calif. K1	58.00	58.50		
Geneva. Utah Gl	52.00	52.50		
Seattle, Tacoma, Wash., del Portland, Oreg., del		60.20		
Portland, Oreg., del.	59.70	60.20	• • • •	
Los Angeles, San Francisco, del.	53.90	60.20 54.40	54.90	
GraniteCity,Ill. M10	54.65	55.15	55.65	
Tronton IItah C11	52.00	52.50	00.00	
Ironton, Utah C11	48.00	•48.50	48.50	
Minnequa, Colo. C10	54.00	55.00	55.00	
Pittsburgh District				
NevilleIsland, Pa. P6		52.50	52.50	53.00
Pitts., N&S. sides, Ambridge,				
Aliquippa, del.		53.69	53.69	54.19
McKeesRocks,del.	****	53.45	53.45	53.95
Lawrenceville, Homestead,		53.94	53.94	54.44
McKeesport, Monaca, del Verona, del		54.40	54.40	54.90
Rrackenridge del		54.63	54.63	55.13
Brackenridge, del	52.00		52.50	53.00
Clairton, Rankin, So. Duquesne, Pa. U5	52.00			
Makespart Pa N2	52.00			53.00
Monessen, Pa. P7	54.00			
Monessen, Pa. P7 Sharpsville, Pa. S6	2011		52.50	53.00
Steelton Ps R2	54.00	54.50	55.00	55.50
Swedeland,Pa. A3	56.00	56.50	57.00	57.50
Cincinneti del	52.00 57.01	52.50 57.51	52.50	53.00
Cincinnati, del	54.00	54.50	55.00	55,50
Youngstown District	02.00	04.00	00.00	00.00
Hubbard, O. Y1	52.00	52.50	52.50	
Youngstown Y1	52.00	52.50	52.50	
Youngstown U5				53.00
Mansfield, O., del	56.26	56.76	56.76	57.2

^{*} Low phos southern grade.

PIG IRON DIFFERENTIALS

Silicon: Add 50 cents per ton for each 0.25% Si over base grade, 1.

2.25%.

Phosphorus: Deduct 38 cents per ton for P content of 0.70% and over Manganese: Add 50 cents per ton for each 0.50% manganese over 1° or portion thereof.

Nickel: Under 0.50% no extra; 0.50-0.74%, incl., add \$2 per ton a each additional 0.25%, add \$1 per ton.

BLAST FURNACE SILVERY PIG IRON, Gross Ton

							ach 0.5%	
Jackson, O.								
Buffalo H	۱			/				0.0
FLECTRI	C EI	IRNA	CE S	ILVERY	PIG IRC	N. G	ross Ton	

(Base 14 01-14 50% silicon: add \$1 for each 0.5% Si to 18%;

each 0.5% Mn over	10% · €1 for	Aoch 0 045%	mar Pl
each 0.070 min over	170, 91 101	Cacii 0.010 /0	
NiagaraFalls, N.Y. P15			S
Keokuk, Iowa, Openhearth &	Edra fri o	llowed K9	
Keokuk, OH & Fdry., 121/2 ll	n mierlade 18	10/ Ci fet all	owed K2
Reckuk, On or Fully., 1272 II	o. billiars, To	170 101, 116, 2011	OWEU ILD
Wenatchee. Wash., O.H. & Fo	laws day only	0.78 pawa	
wenatchee, wash., O.H. & Fo	rry., trr. am	owed Ma	

CHARCOAL PIG IRON, Gross Ton

Troy, N.Y. R2

LOW PHOSPHOROUS	PIG	IRON,	Gross	Ten
Cleveland, intermediate,				
Steelton, Pa. B2	• • • • •		• • • • • • •	

Semifinished and Finished Steel Products

Mill prices a	s reported to STEEL Jan. 11,	1951: cents per pound except	as otherwise noted. Changes	shown in italies.
INGOTS, Carbon, Forging (NT	Code numbers following in	ill points indicate producing of	company; key on next two page	es,
Fontana, Calif. K1\$79.00	Carpon Steel Stand. Shapes	PLATES, Carbon Steel AlabamaCity, Ala. R23.7	U RADE & CHANII CHADEC LID	5 BARS, Reinforcing (Fabricators) AlabamaCity, Ala. R23.70
Munhall, Pa. U552.00 INGOTS. Alloy (NT)	AlabamaCity, Ala. R23.6 Aliquippa, Pa. J53.6	0 Aliquippa,Pa. J53.7 5 Ashland,Ky(15) A103.7		Alton, III. (6) L.1 3. 90
INGOTS, Alloy (NT) Detroit R7\$54.00 Fontana, Calif. K180.00	Bessemer, Ala. T23.6 Bethlehem, Pa. B23.7	O Claimton Do TIE 27	O Aliquippa, Pa. J55.5 O Atlanta A115.3	D D. 66-1- DO 27A
Houston, Tex. S562.00 Midland, Pa. C1854.00	Cianton, Fa. UJ	5 Claymont, Del. W164.1 5 Cleveland J5, R23.7	5 Dessemer, Ala, 125.5	5 Cleveland R2 3.70 5 Emeryville, Calif. J7 4.45 5 Fairfield, Ala. T2 3.70
Munhall, Pa. U554.00	Fontana, Calif. K14.2 Gary, Ind. U53.6	5 Coatesville, Pa. L74.1	5 Clairton, Pa. U55.5 5 Cleveland R25.5	Fairfield, Ala. 123.10 Fontana, Calif. K14.40
So. Duquesne, Pa. U554.00	Geneva Iltah G1 3 8	5 Faorga Mich CE 97	5 Ecorse, Mich. G55.6	Gary, Ind. U53.70 Houston, Tex. S54.10
BILLETS, BLOOMS & Slabs Carbon, Rerolling (NT)	Houston, Tex. S54.0 Ind. Harbor, Ind. I-23.6	5 Fontana, Calif. (30) K14.3	o Fontana, Calif. Kl6.6	Ind.Harbor,Ind. I-2, Y1.3.70 Johnstown,Pa. B23.70
Bessemer, Pa. U5\$56.00 Clairton, Pa. U556.00 Ensley, Ala. T256.00	Johnstown,Pa. B23.7 KansasCity,Mo. S54.2	0 Garvind II5 37	0 Gary,Ind, U55.5 0 Ind.Harbor,Ind, I-25.5	KansasCity, Mo. S54.30 Lackawanna, N.Y. B23.70
Ensley, Ala, T256.00 Fairfield, Ala, T256.00	KansasCity, Mo. S54.2 Lackawanna, N.Y. B23.7 Los Angeles B34.2	0 Geneva. Utah G13.7	O IndianaHarbor, Ind. Y16.0 Johnstown, Pa. B25.5	5 Los Angeles B34.40 Milton, Pa. B64.20
Fontana, Calif. K175.00	Minnequa, Colo. C104.1	O Houston Tex S5 4 1		Minnequa, Colo. Clu4.50
Gary, Ind. U5	Niles, Calif. (22) P14.8	5 T-1 D- DO 0.77	Pittsburgh J55.58	Pittsburg, Calif. C114.40
Lackawanna, N.Y. B2 56.00 Munhall, Pa. U5 56.00	Portland, Oreg. 044.5	5 Lackawanna, N.Y. B23.7 0 Minnequa, Colo. C104.5	So.Duquesne,Pa. U55.5	Pittsburgh J53.70 Portland, Oreg. O44.65
So.Chicago,Ill. U556.00 So.Duquesne,Pa. U556.00		0 Minnequa, Colo, C104.5 0 Munhall.Pa, U53.7 5 Pittsburgh J53.7	0 So.Duquesne,Pa. U55.5; 0 So.SanFrancisco B36.3; 0 Struthers.O. Y16.0	SandSprings,Okla. S54.60 Seattle B3, N144.45
' Carbon, Forging (NT)	So.SanFrancisco B34.26 Torrance.Calif. C114.28	5 Sharon Pa S33.9	O Youngstown Upb.ba	So Chicago III R23.70
Bessemer, Pa. U5\$66.00 Buffalo R266.00	Weirton, W. Va. W6 3 91	3 So Chicago III II5 W14 2 7	0 Ambridge, Pa. W184.58	So. Duquesne, Pa. U53.70 So. SanFrancisco B34.45 SparrowsPoint, Md. B23.70
Canton, O. R266,00	Clairton, Pa. Ub4.3	Steubenville, O. W103.7	Buffalo B54.60	Struthers, O. Y13.70
Clairton, Pa. U566.00 Cleveland R266.00	Munhall.Pa. U54.3	5 Weirton, W. Va. W64.0) Camacii, 11.0. 1 10	
Conshohocken, Pa. A373.00 Detroit R7 69.00	H S I A Stand Shanes		Chicago W184.55	BARS, Reinforcing (Fabricated; to Consumers)
Ensley, Ala. T266.00 Fairfield, Ala. T266.00	Aliquippa, Pa. Jo 5.50	Economy.Pa. B148.6	Detroit P174.70	Huntington, W.Va. W75.50
Fontana, Calif. K185.00 Gary, Ind. U566.00	Clairton.Pa. U55.50) A mblom of 1-1 (45) A 40 4 41	Carnegie, Pa. C12 4.55 Chicago W18 4.55 Cleveland A7, C20 4.55 Detroit P17 4.77 Donora, Pa. A7 4.55 Ecorse, Mich. G5 4.33 Elvisio O W2	5 Johnstown, ¼-1" B24.75 5 LosAngeles B35.45 6 Marion, O. P115.00
Geneva, Utah G166.00	Fairfield, Ala. T25.50 Fontana, Calif. K16.10	Cleveland, c.l. R24.30	FranklinPark.III N54.55	Seattle B3, N145.55
Johnstown, Pa. B2 66.00	Gary, Ind. U55.50	BARS Hot-Polled Carbon	Gary,Ind. R2	5 SparrowsPt. ¼-1" B2. 4.75
Lackawanna, N.Y. B2 66.00 Los Angeles B3 85.00	Ind. Harbor, Ind. I-25.50	AlabamaCity, Ala. R23.70 Aliquippa, Pa. J53.70	Hammond.Ind. L2, M13.4.55 Hartford,Conn. R25.10	Williamsport, Pa. S195.10 SHEETS, Hot-Rolled Steel
Munhall, Pa. U566.00 Seattle B385.00	Ind. Harbor, Ind. I-2 5.50 Ind. Harbor, Ind. Y1 6.00 Johnstown, Pa. B2 5.50 Lackawanna, N. Y. (14) B2 5.50	Alton, Ill. (1) L13.48 Atlanta, Ga, A114.28	Harvey, Ill. B54.55	(18 gage and heavier)
So. Chicago R2, U5 66 00	Lackawanna, N. Y. (14) B2 5.50 Los Angeles B36.05		Mansfield, Mass. B55.10) Achland Kv (8) AIO3.60
So.Chicago W14 63.00 So.Duquesne, Pa. U5 66.00 So.SanFrancisco B3 85.00	Munhall, Pa. U55.50 Seattle B36.10	Canton, O. \mathbb{R}^2	Midland, Pa. C18	Butler, Pa. A103.60 Cleveland J5, R23.60 Conshohocken, Pa. A34.00
	So.Chicago, Ill. U55.50 So.SanFrancisco B36.00	Cleveland R23.70) IVEWALK, IV. J. VV 10	Detroit M14.40
Alloy, Forging (NT) Bethlehem, Pa. B2\$70.00	Struthers, O. Y16.00 Wide Flange	Detroit R73.85 Ecorse, Mich G53.65	Pittshurgh I5 4 55	Fairfield Ala T23.60
Ruffalo R2 70.00		Emeryville, Caif. J74.45	Putnam, Conn. W185.10	1 Carv Ind 115
Canton,O. R2	Lackawanna, N.Y. B23.70	Fairfield, Ala. T23.70 Fontana, Calif. K14.40 Gary, Ind. U53.70	St. Louis, Mo. M5	Geneva, Utah G1 3.70 Granite City, Ill. G4 4.30
Detroit R773.00 Fontana, Calif. K189.00	Munhall, Pa. U53.65 So. Chicago, Ill. U53.65		SpringCity, Pa. (5) K3 5.00 Struthers, O. Y1	Ind. Harbor, Ind. I-2, Y1, 3, 60 Irvin. Pa. U5
Gary, Ind. U570.00 Houston, Tex. S578.00	H.S., L.A. Wide Flange Bethlehem, Pa. B25.50	Johnstown.Pa. B23.70	waukegan, III. A74.55	Irvin, Pa. U5
Ind. Harbor, Ind. Y166.00 Johnstown, Pa. B270.00	Lackawanna, N.Y. B25.50 Munhall, Pa. U55.45	Lackawanna, N.Y. B23.70	BARS, Cold-Finished : Alloy	Niles, O. N12
Lackawanna, N.Y. B270.00	So. Chieago, Ill. U55.45 SHEET STEEL PILING	Milton.Pa. B64.20		Tittehungh T5 3 60
Los Angeles B390.00 Massillon, O. R270.00	Ind. Harbor, Ind. I-24.45 Lackawanna, N.Y. B24.45	Minnequa.Colo. C104.15 Niles.Calif. P15.05	BeaverFalls,Pa. M125.40 Bethlehem,Pa. B25.40 Buffalo B5	Sharon, Pa. S34.00 So. Chicago, Ill. W143.60 Sparrows Point, Md. B23.60
Midland, Pa. C1870.00 Munhall, Pa. U570.00	Munnall, Pa. U54.45	Pittshurg Calif C11 4 40	Buffalo B5	Steubenville, O. W103.60 Torrance, Calif. C114.30
So. Chicago R2, U5 70.00 So. Chicago W14 66.00	So. Chicago, Ill. U54.45 BEARING PILES	Pittsburgh J53.70 Portland.Oreg. O44.65	Canton, O. (29) T74.90	Warren.O. R23.60
80. Duquesne, Pa. U5 70.00 Warren, O. C17 70.00	Munhall, Pa. U53.65 So. Chicago, Ill. U53.65	Seattle R3 N14 445	Chicago W185.40	Wort I southware Ps A4 3.75
ROUNDS, SEAMLESS TUBE (NT)	PLATES, High-Strength Low-Alloy Aliquippa, Pa. J55.65	So. Duquesne, Pa. U53.70 So. San Fran., Cal. B34.45	Cleveland C20 5 40	Youngstown U5, Y13.60
Canton, O. R2\$82.00	Bessemer, Ala. T25.65 Clairton, Pa. U55.65	Struthers O V1 3 70	Detroit P17	AlabamaCity, Ala, R24.75 Dover.O. R15.65
Canton, O. R2 \$82.00 Cleveland R2 \$2.00 Fontana, Calif. K1 103.00	Cleveland J5, R25.65 Conshohocken,Pa. A35.90	Torrance, Calif. C114.40 Weirton, W.Va. W63.85 Youngstown R2, U53.70	Elyria, O. W85.40 Gary, Ind R25.40	Ind. Harbor, Ind. I-2 5.40 Mansfield, O. E6 5.65
3ary, Ind. U582.00 Massillon, O. R282.00	Ecorse, Mich. G55.85 Fairfield, Ala. T25.65	Youngstown R2, U53.70 BAR SIZE ANGLES: S. SHAPES	Hammond, Ind. L2, M13.5.40 Hartford, Conn. R25.85	Nilos O N19 - 5 75
So. Chicago, Ill. R282.00	Fontana, Calif. (30) K1 6.25	Aliquippa, Pa. Jo3.10	Harvey, Ill. B55.40	SHFETS, H-R (14-gg., heavier)
50. Duquesne, Pa. U582.00	Gary, Ind. U55.65 Geneva, Utah G15.65	Johnstown, Pa, B23.70	Mansfield, Mass. B55.85	High-Strength Low-Alloy Cleveland J5, R25.40
SHEET BARS (NT) Fontana, Calif. K1\$89.00	Geneva, Utah G1 . 5.65 Ind. Harbor, Ind. 1-2 . 5.65 Ind. Harbor, Ind. V1 . 6.15 Johnstown, Pa. B2 . 5.65 Munhall, Pa. U5 . 5.65 Munhall, Pa. U5 . 5.65 Seattle B3 . 6.55 Sharon, Pa. S3 . 5.70 So. Chicago, Ill. U5 . 5.65 Sparrows Point, Md. B2 . 5.65 Warren O. R2 . 5.65	Lackawanna, N.Y. B2 3.70 Niles, Calif. P15.05	Massillon,O. R2, R85.40 Midland,Pa. C185.40	Conshohocken, Pa. A35.65 Ecorse, Mich. G55.50
KELP	Johnstown, Pa. B25.65 Munhall Pa. U55.65	Niles, Calif. P1 5.05 Portland, Oreg. 04 4.65 SanFrancisco S7 4.85	Monaca, Pa. S175.40 Newark, N.J. W185.75	Fairfield, Ala. T25.40 Fontana, Calif. K16.35
Aliquippa, Pa. J53.45	Pittsburgh J55.65	BAR SIZE ANGLES; H.R.CARBON Bethlehem, Pa. B23.90	Midland, Pa. C18 . 5.40 Monaca, Pa. S17 . 5.40 Newark, N.J. W18 . 5.75 Plymouth, Mich. P5 . 5.60 So.Chicago, Ill. R2, W14.5.40	Gary, Ind. U55.40
Aliquippa, Pa. J53.45 Munhall, Pa. U53.35 Warren, O. R23.35 Toungstown R2, U53.35	Sharon, Pa. S35.70	BARS, Hot-Rolled Alloy Bethlehem, Pa. B2 4.30 Buffalo R2 4.30 Canton, O. R2 4.30 Canton, O. R2 4.30 Canton, O. R2 4.30 Canton, O. R2 4.30 Detroit R7 4.55 Ecorse, Mich. G5 4.25 Fontana. Calif. K1 5.35 Gary, Ind. U5 4.30 Houston. Tex. S5 4.70	Struthers, O. Y1 5.40 Warren, O. C17 5.40 Waukegan, Ill. A7 5.45	Ind. Harbor, Ind. I-2 5.40 Indiana Harbor, Ind. Y1 5.90 Irvin, Pa. U5 5.40 Lackawanna (35) B2 5.40 Pittsburgh J5 5.40 Sharon Pa S3 5.40
Youngstown R2, U53.35	SparrowsPoint, Md. B2 .5.65	Bethlehem, Pa, B24.30 Buffalo R24.30	Waukegan, Ill. A75.45 Worcester Mass A7 5.75	Irvin, Pa. U5
Alabama Citara Ata Do 4 40	Youngstown Y16.15	Canton, O. R24.30 Canton, O. (29) T73.95	Worcester, Mass. A75.75 Youngstown F3, Y15.40	Pittsburgh J55.40 Sharon, Pa. S35.40
Suffalo W12	PLATES, Open-Hearth Alloy Claymont, Del. W164.85	Clairton, Pa. U54.30 Detroit R7 4.45	RAIL STEEL BARS ChicagoHts.(3,4)I-2, C2.4.75	Sharon, Pa. S3
Onora, Pa. A74.10	Coatesville, Pa. L75.25 Conshohocken, Pa. A35.05 Fontana, Calif. K15.70	Ecorse, Mich. G54.25 Fontana Calif K1 5.35	Dallas, Tex. (4) S206.00 Franklin, Pa. (3,4) F54.75	Warren, O. R2
fairfield, Ala. T24.10 fontana, Calif. K14.90	Fontana, Calif. K15.70	Gary, Ind. U54.30 Houston, Tex. S54.70	FortWorth, Tex. (26) T4.4.63 Huntngtn, W. Va. (3) W7 .5.50	Youngstown V55.40 Youngstown V15.90
Houston, Tex. S54.50 ohnstown, Pa. B24.10	Gary, Ind. U54.75 Johnstown, Pa. B24.75	Ind Harbor Ind I-2 V1 4 30	Marion, O. (3) P114.75	courage Calif Ballad Blak
oliet, Ill. A74.10	Munhall.Pa. U5	Johnstown, Pa. B2 4.30 Kansas City, Mo. S5 4.90 Lackawanna, N.Y. B2 4.30	Marion, O. (3) P11 .4.75 Moline, III. (3) R2	Sheets, Color-Rolled nign- Strength Low-Alloy Cleveland J5, R2 6.55 Ecorse, Mich. G5 6.65 Fontana, Calif. K1 7.50 Gafy, Ind. U5 6.55 Indiana Harbor, Ind. Y1 7.06
Ainnequa, Colo, C104.35	SparrowsPoint, Md. B2. 4.75	Lackawanna, N.Y. B24.30 Los Angeles B35.35	Williamsport(3) \$195.00 Williamsport(4) \$195.10	Ecorse, Mich. G56.65 Fontana, Calif K17 50
to. Tonawanda, N.Y.B11 4.10	FLOOR PLATES Cleveland J54.75	LosAngeles B35.35 Massillon,O. R24.30 Midland,Pa. C184.30 So.Chicago R2, U5, W14.4.30	BARS, Wrought Iron	Gafy, Ind. U56.55
Fairfield, Ala. T2 4, 10 Fontana, Calif. K1 4,90 Jouston, Tex. 85 4,50 ohnstown, Pa. B2 4,10 olist, III. A7 4,10 olist, III. A7 4,10 olist, III. A7 4,30 donessen, Pa. P7 4,30 do. Tonawanda, N.Y. B11 4,10 'Ittsburg, Calif. C11 4,75 'Ortsmouth, O. P12 4,30 toebling, N.J. R5 4,20 io. Chicago, III. R2 4,10			Dover (Wrest Iron) III . 13.50	Indiananana bor, ind. I-a
io. Chicago, Ill. R24.10 iparrowsPoint, Md. B24.20	Harrisburg, Pa. C5	Struthers, O. Y14.30 Warren, O. C174.30	Dover(Eng.Bolt) U1 .13.50 Dover(Wrgt.Iron) U1 .12.25 Economy,Pa.(S.R.) B14.9.60 Economy,Pa.(D.R.)B14 11.90	Irvin, Pa. U5
terling, Ill. (1) N154.10	So. Chicago, III. Up	Youngstown Ub4.30	Economy (Staybolt) B14 12.20	Pittsburgh J56.55 SparrowsPoint(38) B26.55
terling, Ill. (1) N154.10 truthers, O. Y14.10 lorrance, Calif. C114.90	PLATES, Carbon A.R. Fontana, Calif. K15.45	BAR SHAPES, Hot-Rolled Alloy Clairton, Pa. U54.55	McK.Rks.(Staybolt) L5.14.50 McK.Rks.(S.R.) L59.60 McK.Rks.(D.R.) L513.00	Warren O 129 8 55 1
Vorcester A74.40	Geneva, Utah G14.85	Gary, Ind. U54.55	McK.Rks.(D.R.) L513.00	Youngstown Y17.05

SHEETS, Cold-Rolled Steel	MANUFACTURING TERNES	TIN PLATE, American 1.25 1.50	STRIP, Hot-Rolled Carbon	STRIP, Cold-Rolled Carbon
(Commercial Quality)	(Special Coated)	Coke (Base Box) Ib Ib	Ala.City, Ala.(27) R23.50	Anderson, ind. (40) G65.5 Berea, O. C7
Butler.Pa. A104.35	Fairfield, Ala. T2\$7.60 Gary, and. U57.	Aliquippa Jo\$8.45 \$8.70 Fairfield, Ala, T2. 8.55 8.80	Alton, Ill. (1) 1.13.25 Ashland, Ky(8) A103.50	Bridgeprt, Conn. (10) S15.5.3
Cleveland J5, R24.35	irvin,Pa. U57.50		Atlanta A114.05 Bessemer, Ala. T23.50	Butler, Pa. A104.6
Ecorse, Mich. G54.55 Fairfield, Ala. T24.35	SparrowsPoint, Md. B27.60	ind.Har. I-2, Y1. 8.45 8.70 irvin,Pa. U5 8.45 8.70	Bessemer, Ala. T23.00 Bridgeprt, Conn. (10) S15.4.00	Cleveland A7, J54.6 Dearborn, Mich. D35.6
Follansbee, W. Va. F45.35	Yorkville, O. W107.50	Pitts., Cal. C11 9.20 9.40	Buttalo(27) R23.50	Detroit D2
Fontana, Calif. K15.30	SHEETS, Lt. Coated Ternes, 6lb Yorkvill, O. W10\$8.40	Sp.Pt., Md. B2 8.55 8.50	Butler.Pa. A103.50	Detroit M15.4
GraniteCity II G45.05		Weirton W6 8.45 8.70	Carnegie, Pa. S184.00 Conshohocken, Pa. A33.90	Dover, O. (40) G65.5 Ecorse, Mich. G54.5
Gary, ind. U54.35 GraniteCity, ill. G45.05 Ind. Harbor, ind. I-2, Y1.4.35	SHEETS, Mfg. Ternes, 8 lb (Commercial Quality)	Yorkville, O. W10. 8.45 8.70	Detroit M14.40	Follansbee, W.Va. F4 5.3
Irvin, Pa, U54.35	Gary, ind. U5\$9.50 Warren, O. R29.50	CANMAKING BLACK PLATE	Ecorse, Mich. G53.45	Fontana, Calif. K16.
Lackawanna, N.Y. B24.35 Middletown, O. A104.35	Warren, O. R29.50 Yorkville, O. W109.50	(Base Box)	Fairfield, Ala. T23.50 Fontana, Calif. K14.75	FranklinPark, III. (40) 16 4.5
Pittsburg, Calif. C115.30	ROOFING SHORT TERNES	Aliquippa, Pa. J5\$6.25 Fairneld, Ala. T26.35	Gary.lnd. U53.50	Lackawanna, N.Y. B24.
Pittsburgh J54.35	(Mackage: 8 lb conted)	Gary and U5	Houston. Tex. S54.90	LosAngeles C16.
SparrowsPoint, Md. B24.35 Steubenville, O. W104.35	Gary, Ind. U5\$17.50	GraniteCity, ill. G46.45 Ind. Harbor, ind. 1-2, Y1.6.25	Ind. Harbor, Ind. I-2, Y1.3.50 Johnstown, Pa. (25) B2 3.50	Mattapan, Mass. To
Warren, O. R24.35 Weirton, W. Va. W64.35		Irvin.Pa. U56.25	KansasCity, Mo. (9) S5 4.10	NewBritain(10) S155.2
Weirton, W. Va. W64.35	Yorkville, O. W106.80 Follansbee, W. Va. (23) F4 6.85	Niles, O. R2	Lackawanna, N.Y. (32) B2 3.50	NewCastle, Pa. B45.:
Youngstown Y14.35		Pittsourg, Calif. C117.00	Los Angeles B34.25 Milton, Pa. B64.00	NewHaven, Conn. D25.
SHEETS, Galv'd No. 10 Steel	SHEETS, Culvert Cu Cu No. 16 Alloy Fe	SparrowsPoint, Md. B2 .6.35 Warren, O. R26.25	Minnequa, Colo. C104.55	NewHaven, Conn. A75.
AlabamaCity, Ala., R24.80	Ashland A10 5.60	Weirton, W.Va. W66.25	NewBritain(10) \$154.00	Pawtucket, R.I. R36.
Ashland, Ky. (8) A104.80	Canton.O. R2 5.65 6.10	Yorkville, O. W106.25	N. Tonawanda, N.Y. B11.3.50 Pittsburg, Calif. C114.25	
Canton,O. R24.80 Dover,O. R15.50		HOLLOWARE ENAMELING Black Plate (29 gage)	Riverdale, Ill. A13.50	Rome, N.Y. R65.
Fairfield, Ala. T24.80	Gary U5 5.60 5.85 IndianaHarbor I-2 5.60 5.85	Follansbee, W. Va. 145.85	SanFrancisco S74.85	Sharon, Pa. S3
Gary, Ind. U54.80	Irvin.Pa. U5 5.60 5.85	Gary, and. U55.85	Seattle B3, N144.50 Sharon Pa S3 4.00	SparrowsPoint, Md. B2 4.0 Trenton, N.J. R5 6.0
GraniteCity.Ill. G45.50 Ind.Harbor,Ind. I-24.80	Kokomo C16 6.25 MartinsFy.O. W10 5.60 5.85	GraniteCiy,lll. G46.05 Ind. Harbor, ind. Y15.30	Sharon, Pa. S34.00 So. Chicago, Ill. W143.50	Wallingford, Conn. W2 .5.8
Irvin.Pa. U54.80	Pittsburg Cal. C11 6.35	Irvin, Pa. U55.85	So. San Francisco B34.25	Warren, O. (40) T55.
Kokomo, Ind. (13) C16 5.20 Martins Ferry, O. W10 4.80	SparrowsPt. B2 5.60	Yorkville, O. W106.15	SparrowsPoint, Md. B23.50 Torrance, Calif. C114.25	Warren, O. R24.6 Weirton, W. Va. W64.6
Niles.O. N126.00		STRIP, Hot-Rolled,	Warren.O. R23.50	WestLeechburg, Pa. A44.
Pittsburg, Calif. C115.55	SHEETS, Culvert, No. 16 Corrugated Ingot Iron	High-Strength Low-Alloy Atlanta(9) All5.10	Weirton, W. Va. W63.60	Youngstown C8, (40)5.:
SparrowsPoint, Md. B24.80	Ashland, Ky. A105.85	Bessemer, Ala. T25.30 Conshohocken, Pa. A35.55 b.corse high G5	WestLeechburg, Pa. A43.75 Youngstown U5, Y13.50	Youngstown Y14.
Steubenville, O. W104.80 Torrance, Calif. C115.55	Fairfield, Ala. T25.60	Conshonocken, Pa. A3 5.55		Bridgeprt, Conn. (10) 815 5.4
Weirton, W. Va. W64.80	SHEETS, Hot-Rolled Ingot Iron	Fairneld, Ala. T25.30	STRIP, Electro Galvanized Cleveland A74.65	Carnegie, Pa. S185.
	18 Gage and Heavier		Dover, O. G65.50	Fontana, Calif. K16. Gary, Ind. U55.
SHEETS, Galvanized No. 10, High-Strength Low Alloy		Gary, and U5	Warren, O. T55.25	Houston, Tex. S55.5
Irvin, Pa. U57.20	Ind. Harbor, Ind. I-23.85	IndianaHarpor, Ind. Y1. 5.80	Weirton, W. Va. W64.65 Youngstown C85.25	KansasCity, Mo. S56.
SparrowsPoint(39) B26.75	Warren, O. R24.20	Lackawanna is V R9 4 us	TIGHT COOPERACE HOOP	NewBritn, Conn. (10) S15 5.4 Sharon, Pa. S35.
SHEETS, Galvannealed Steel		LosAngeles (20) B36.05 Seattle B36.30		Youngstown U55
Canton, O. R25.35	Alidaletown, U. Alu4.00	Sharon Pa S3 5 40	Atlanta A114.05 Riverdale, III. A13.90	STRIP, Hot-Rolled Ingot Iron
Irvin.Pa. U55.35 Kokomo,Ind.(13) C165.75	Warren, U. R.24.90	So.SanFrancisco(25) B3.6.05	Sharon, Pa. 834.15 Youngstown U53.75	Ashland, Ky. (8) A103. Warren, O. R24.
Niles, O. N126.55	SHEETS, Galvanized Ingot Iron No. 10 flat	SparrowsPoint,Md, B24.95 Warren,O. R2530	STRIP. Cold-Finished. 0.2	6- 0.41- 0.61- 0.81- 1.0
	Ashland, Ky. (8) A105.05	Warren, O. R25.30 Weirton, W. Va. W65.75	Spring Steel (Annealed) 0.4	OC 0.60C 0.80C 1.05C 1.3
SHEETS, ZINCGRIP Steel No. 10 Butler, Pa. A105.05	Canton, O. R2	Youngstown V15.80 Youngstown U55.30	Berea, U. Cl	. 6.80 7.40 9.35 11. 5 6.80 7.40 9.35 11.
Middletown, O. Alo5.05	Butler, Pa. A105.30	roungstown Upp.30	Bristol, Conn. W1	7.70 9.65
SHEETS, Electro Galvanized	Middletown, O. A105.30	High-Strength Low-Alloy	Bristol, Conn. W1 Carnegie, Pa. S18 Cleveland A7 4.6	. 6.80 7.40 9.35 11. 5 6.45 7.40 9.35 11.
Cleveland R2 (28)5.65	SHEETS, Enameling Iron Ashland, Ky. (8) A104.65	Cleveland A7, J56.70	Dearborn, Mich. D3 5.6	0 7.00 7.60
Niles, O. R2 (28)5.65 Weirton, W. Va. W65.50	Cleveland R24.65	Fooree Wich C5 665	Detroit D2 5.6	60 6.65 7.25
	Ecorse, Mich. G54.70 Gary, Ind. U54.65	Fontana, Calif. Kl6.95	Dover.O. G6 5.5 Franklin, Park, Ill. T6 5.0	60 6.80 7.40 9.35 11. 00 6.60 7.55 9.50 11.
SHEETS, Zinc Alloy Ind. Harbor, Ind. I-25.70			Harrison, N.J. C18	7.70 9.65 11.
	Ind. Harbor, Ind. I-24.65	SparrowsPoint Md R2 6 40	Mattapan, Mass. T6 5.5 NewBritn., Conn. (10) S15 5.3	
SHEETS, Long Terne Steel (Commercial Quality)	Irvin, Pa. U54.65	Warren, O. R26.55 Weirton, W. Va. W67.20	NewCastle Pa. B4 5.3	5 6.80 7.40 9.35
BeechBottom.W.Va.W10 5.20	Youngstown Y14.65	Youngstown Y17.25	NewCastle.Pa. E5 5.5	0 6.80 7.40 9.35 11
Gary, Ind. U55.20	SHEETS, Drum Body		NewHaven, Conn. D2 5.8 NewYork W3	5 6.75 7.35 7.10 7.70 9.65 11.
Mansfield, O. E66.05	Pittsburg, Calif. C114.30 Torrance, Calif. C114.30	Bridgepri, Conn. (10) S15 10.10	Pawtucket, R.I. N8:	
Middletown, O. A105.20 Niles, O. N12		Claveland 47	Cleve-or-Pitts.Base 5.8	. 6.80 7.40 9.35 11. 5 7.10 7.70 9.65 11
Niles, O. N12	Fontana, Calif. KI5.10		Charge Do C2 5 2	
SHEETS, Long Terne, Ingot Iron	Torrance, Calif. C115.10 SHEETS, ALUMINIZED	Fontana, Calif. K1 11.65 Harrison, N.J. C18 10.60	Trenton, N.J. R5	. 7.10 7.70 9.65 11
Middletown, O. A105.60		NewBritn.Conn. (10) S15 10.10	Wallingford, Conn. W2 . 5.8 Weirton, W. Va. W6 5.3	
TIN PLATE, Electrolytic (Base I	3ox) 0.25 tb 0.50 lb 0.75 lb	Pawtucket. R.I. (11) NR 10 75	Worcester Mass. A7 4.9	5 6.75 7.70 9.65 11
	\$7.15 \$7.40 \$7.80	Pawtucket, R. I. (12) N8.11.05	Worcester, Mass. T6 5.5	
Aliquippa,Pa. J5 Fairfield,Ala. T2	7.25 7.50 7.90	Sharon, Pa. S3 10.60 Worcester, Mass. A7 10.30	Spring Steel (Tempered)	. 6.80 7.40 9.35 11
Gary Ind U5	7.15 7.40 7.80 7.35 7.60 8.00	Worcester, Mass. A7 . 10.30 Youngstown C8 10.60 STRIP, Coid-Rolled Ingot Iron Warren, O. R2 5.25	Trenton, N.J. R5	10.30 12.50 15
GraniteCity,Ill. G4 Ind.Harbor,Ind. I-2, Y1	7.15 7.40 7.80	Warren, O. R2 5.25	Harrison, N.J. C18 NewYork W3	
Irvin.Pa. U5				10.03 12.00 13
Niles, O. R2	7.15 7.40 7.80 7.90 8.15 8.40	i Ke	ey to Producing Companie	es
SparrowsPoint,Md. B2	7.25 7.50 7.90	A1 Acme Steel Co.	C11 Columbia Steel Co.	G3 Globe Steel Tubes Co-
SparrowsPoint, Md. B2 Weirton, W. Va. W6	7.15 7.40 7.80	A3 Alan Wood Steel Co.	C12 Columbia Steel & Shaft. C13 Columbia Tool Steel Co.	G4 Granite City Steel Co. G5 Great Lakes Steel Co.
Yorkville,O. W10		A7 AmericanSteel & Wire		G5 Great Lakes Steel Co.
SHEETS, SILICON, H.R. or C.R.(22	2 Ga.) Arma- Elec- Dyna-	A8 Anchor Drawn Steel Co.	C16 Continental Steel Corp.	H1 Hanna Furnace Cor
COILS (Cut Lengths 1/2c lower) BeechBottom W10 (cut length	Field ture tric Motor mo 8) 7.25 8.50 9.30	A9 Angell Nail & Chaplet A10 Armco Steel Corp.	C17 Copperweld Steel Co. C18 Crucible Steel Co.	H4 Heppenstall Co.
Brackenridge, Pa. A4	7.75 9.00 9.80	All Atlantic Steel Co.	C19 Cumberland Steel Co.	I-1 Igoe Bros. Inc.
GraniteCity, Ill. G4 (cut length Ind. Harbor, Ind. I-2	s) 7.95 9.20 ., 6.95 7.25 (34)			I-2 Inland Steel Co. I-3 Interlake Iron Corp.
Mansfield, O. E6 (cut length	s) 7.10 7.25 7.75 9.00 9.80	B1 Babcock & Wilcox Tube B2 Bethlehem Steel Co.	D3 Detroit Tube & Steel	I-4 Ingersoll Steel Div.,
Mansfield, O. E6 (cut length Niles, O. N12 (cut lengths).	6.75 7.25	B3 Beth. Pac. Coast Steel	D4 Disston & Sons, Henry	Borg-Warner Corp.
Vandergrift, Pa. U5 Warren.O. R2	7.25 7.75 9.00 9.80 6.95 7.25 7.75 9.00 9.80		D6 Driver Harris Co. D7 Dickson Weatherproof	J1 Jackson Iron & Steel J3 Jessop Steel Co.
Zanesville.O. A10	7.25 7.75 9.00 9.80	B6 Boiardi Steel Corp.	Nail Co.	J4 Johnson Steel & Wir
SHEETS, SILICON (22 Ga. Base)		B8 Braeburn Alloy Steel	E1 Eastern Gas&Fuel Assoc	
Coils (Cut Lengths 1/2c lower)		B11 Buffalo Bolt Co. B12 Buffalo Steel Co.	E2 Eastern Stainless Steel E4 Electro Metallurgical Co	. J7 Judson Steel Corp.
Transformer Grade	72 65 58 52 hs) 9.85 10.40 11.10 11.90	R14 A M Ryare Co	E5 Elliott Bros. Steel Co.	J8 Jersey Shore Steel C
Brackenridge, Pa. A4	10.35	C2 Calumet Steel Div	E6 Empire Steel Corp. F2 Firth Sterling Steel	K1 Kaiser Steel Corp. K2 Keokuk Electro-Me s
Vandergrift, Pa. U5	10.35 10.90 11.60 12.40	Borg-WarnerCorp.	F3 Fitzsimons Steel Co.	K3 Keystone Drawn St.
Brackenridge,Pa. A4	10.35	C4 Carpenter Steel Co.	F4 Follansbee Steel Corp.	K4 Keystone Steel & W7
H.R. or C.R. COILS AND	22100 22120	C5 Central Iron & Steel Div. Barium Steel Corp.	F5 Franklin Steel Div., Borg-Warner Corp.	L1 Laclede Steel Co. L2 LaSalle Steel Co.
CUT LENGTHS, SILICON (22 G	n.) T-100 T-90 T-80 T-73	C7 Cleve.Cold.Roll.Mills Co.	F6 Fretz-Moon Tube Co.	L3 Latrobe Electric Ste
Butler, Pa. A10 (C.R.)	14.75 15.25	C8 Cold Metal Products Co. C9 Colonial Steel Co.	F7 Ft. Howard Steel & Wire G1 Geneva Steel Co.	Lockhart Iron & Ste Lone Star Steel Co.
vandergrift, Pa. U5	12.90 13.75 14.75 15.25	C10 Colorado Fuel & Iron	G2 Globe Iron Co.	L7 Lukens Steel Co.
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WIRE, Manufacturers Bright, Low Carbon	WIRE, Merchant Quality (6 to 8 gage) An'ld Galv.	WIRE, MB Spring, High Carbon Aliquippa.Pa. J56.25	So.Chicago R2140 Tonawanda B12140	Aliquippa,Pa.(13) J5118 Atlanta A11121
AlabamaCity, Ala. R24.85 Aliquippa, Pa. J54.85	16 to 8 gage) An'id Galv. AlabamaChy R2 . 5.70 5.95 Aliquippa J5 5.70 6.15	Alton, ill. (1) L15.90 Bartonville, Ill. (1) K46.25	Williamsport, Pa. S19150 WOVEN FENCE, 9-15½ Ga. Col	Bartonville, Ill. (19) K4118 Chicago, Ill. W13130
Atlanta A115.10 Alton, lll. (1) L14.50	Atlanta A11 5.95 6.40 Bartonville(19)K4 5.95 6.15	Buffalo W126.25 Cleveland A76.25	AlabamaCity, Ala. R2126	Crawtordsville.Ind. M8 .122
Bartonville, Ill. (1) K44.85 Buffalo W124.85	Buffalo W12 4.85 Cleveland A7 5.70 6.15	Donora, Pa. A76.25 Duluth A76.25	Al.quippa, Pa. 9-14 ½ ga. J5 130 Atlanta A11	Donora, Pa. A7
Chicago W134.85 Cleveland A7, C204.85	Crawfordsville M8 5.95 6.40 Donora A7 5.70 6.15	Fostoria, O. S1	Bartonville, Ill. (19) K4 130 Crawfordsville, Ind. M8 . 132	Galveston, Tex. D7126
Crawfordsville, Ind. M85.10 Donora, Pa. A74.85	Duluth A7 5.70 6.15 Fairfield T2 5.70 6.15	Milbury Mass (12) N6 . 8.05	Donora, Pa. A7	Houston, Tex. S5126 Johnstown, Pa. B2118 Johnstown, Pa. B2118
Duluth A74.85 Fairfield, Ala. T24.85 Fostoria, O. (24) S15.35	Houston, Tex. S5 6.10 6.55 Johnstown B2 5.70 6.15	Palmer, Mass. W126.55	Houston, Tex. 85	Joliet, Ill. A7118 Kansas City, Mo. S5130 Kokomo Ind. C16120
Houston S5	Joliet, Ill. A7 5.70 6.15 KansasCy,Mo. S5. 6.30 6.75 Kokomo C16 5.80 6.05			Kokomo, Ind. C16120 Minnequa, Colo. C10123 Monessen, Pa. P7124
Joliet, Ill. A74.85 KansasCity, Mo. S55.45	LosAngeles B3 6.65 Minnequa C10 5.95 6.45	Portsmouth, O. P126.25 So.Chicago, lll. R26.25 So.SanFrancisco C106.85 SparrowsPoint, Md. B26.35	Joliet, Ill. A7	Pittsburg, Calif. C11137 Portsmouth, O. P12124
Kokomo, Ind. C164.95 Los Angeles B35.80	Monessen P7 5.95 6.40 Palmer W12 5.15	Struthers.O. XI6.25	Minnedua, Colo. C10138	Rankin, Pa. A7118 So. Chicago, Ill. R2118
Minnequa, Colo. C105.10 Monessen, Pa. P75.10 Newark, 6-8ga. I-15.50	Pitte Colif C11 665 690	Trenton, N.J. A76.55 Waukegan, Ill. A76.25	Monessen, Pa. P7135 Pittsburg, Calif. C11153	SparrowsPoint,Md. B2120 Sterling,Ill.(1) N15118 Torrance,Calif. C11138
No. Tonawanda BII4.85	So. Chicago R2 5.70 5.95	WIRE Unhalstery Spring	Rankin, Pa. A7	Worcester, Mass. A7124
Palmer, Mass. W125.15 Pittsburg, Calif. C115.80	So.S.Fran. C10 6.65 7.10 SparrowsPt. B2 . 5.80 6.25	Aliquippa, Pa. J55.90 Alton.Ill.(1) L15.55	So.Chicago,Ill. R2126 Sterling,Ill.(1) N15130	NAILS & STAPLES, Non-Stock AlapamaCity, Ala. R26.10
Portsmouth, O. P125.25 Rankin, Pa. A74.85 So. Chicago, Ill. R24.85	Sterling, Ill. (1) N15 5.70 6.15 Struthers, O. Y1 . 5.70 6.15	Cleveland A75.90	AlabamaCity, Ala. R2123	Bartonville, Ill. (19) K4 5.95 Crawfordsville, Ind. M8 . 6.30 Donora, Pa. A7 5.95
So.SanFrancisco C105.80 SparrowsPoint,Md. B24.95	Torrance, Cal. C11 6.65 Worcester A7 6.00 6.45 An'ld Galv.	Donora, Pa. A75.90 Duluth A75.90	Atlanta A11	Duluth A7
Sterling, Ill. (1) N154.85 Struthers, O. Y14.85	WIRE (16 gage) Stone Stone	Johnstown, Pa. B25.90 Los Angeles B36.85	Crawfordsville M8132	Kokomo Ind. C166.05
Torrance, Calif. C115.80	Aliquippa J510.15 11.85 Bartonville(1) K4.10.25 11.95 Cleveland A710.25 12.15	Monessen,Pa. P7, P165.90 NewHaven,Conn. A76.20 Palmer,Mass. W126.20 Pittsburg,Calif. C116.85	Duluth A7	Minnequa, Colo. C106.20 Pittsburg, Calif. C116.90
Waukegan, ill. A74.85 Worcester, Mass. A7, T6.5.15	Crawfrdsvle M810.30 12.00 Fostoria, O. S110.40 13.00	Pittsburg, Calif. C116.85 Portsmouth, O. P125.90	Transascity, mo. 50100	Portsmouth, O. P12
Wire, Cold-Rolled Flat Anderson, Ind. G66.20	Johnstown B210.25 12.15 Kokomo C1610.25 11.95	Roebling, N.J. R56.20 So. Chicago, Ill. R25.90	Minnequa, Colo. C10128	SparrowsPoint,Md, B2 6.05 Sterling, Ill. (1) N15 5.65
Buffalo W126.35 Cleveland A75.85	Minnequa C1010.40 12.40 Palmer, Mass. W12 10.25 12.15	SparrowsPoint,Md. B26.00 Torrance.Calif. C116.85	So. Cincago, III. K2125	Worcester, Mass. A76.25
Crawfordsville, Ind. M86.20 Detroit D2	Pitts., Cal. C11 10.25 12.15 Prtsmth. (18) P12.10.55 12.30	Trenton, N.J. A76.20 Waukegan, Ill. A75.90	So.SanFran., Calif. Cio147 SparrowsPoint, Md. B2125 Sterling, Ill. (1) N15123	NAILS, Cut (100 lb keg) To dealers (33) Conshohocken,Pa. A3\$7.35
Dover, O. G6 6.20 Fostoria, O. S1 6.00 Kokomo, Ind. C16 5.70	SparrowsPt. B2 10.35 12.25 Waukegan A7 10.25 12.15 WIRE, Fine & Weaving (8" Coils)	Worcester, Mass. A76.20 WIRE, Tire Bead	AXLES Ind.Harbor,Ind. S135.60	Wheeling, W. Va. W107.15 TIE PLATES
FranklinPark,Ill. T66.20 Massillon,O. R85.85	Bartonville, Ill. (1) K48.90 Buffalo W128.90	Bartonville, Ill. (1) K4 10.90 Monessen, Pa. P16 11.40	Johnstown, Pa. B25.60	Fairfield, Ala. T24.50 Gary, Ind. U54.50
Monessen, Pa. P165.85 Monessen, Pa. P76.10 New Haven, Conn. D26.50	Chicago W138.90 Cleveland A78.90	Roebling, N.J. R511.55 WIRE, Barbed Col.	Bessemer, Pa. U54.70	Ind.Harbor,Ind. I-24.50 Lackawanna, N.Y. B24.50
Pawtucket, R.I. (12) N86.85	Fostoria.O. S18.90	AlabamaCity, Ala. R2136 Aliquippa, Pa. J5140		Minnequa, Colo. C104.50 Pittsburg, Calif. C114.65
Trenton, N.J. R56.15 Worcester A76.00	Johnstown, Pa. B2 8.90 Kokomo, Ind. C16 8.90	Atlanta A11143 Bartonville, Ill. (19) K4143		Seattle B34.65 Steelton,Pa, B24.50 Torrance,Calif. C114.65
Worcester T66.50 Worcester W126.65 WIRE, Gaiv'd ACSR for Cores	Monessen, Pa. P168.90 Palmer, Mass. W129.20 Portsmouth, O. P128.90	Crawfordsville M8145 Donora,Pa. A7140 Duluth, Minn. A7140	Steelton, Pa. B24.70	STANDARD TRACK SPIKES
Bartonville III K4 8 50	Roebling N.J. R5 9 20	Fairfield, Ala. T2140 Houston, Tex. S5148	KansasCity, Mo. S5 9.85 Lebanon, Pa. (32) B2 9.85	Ind.Harbor,Ind. I-2, Y1.6.15 KansasCity,Mo. S56.40 Lebanon,Pa, B26.15
Monessen, Pa. P168.50 Roebling, N.J. R58.80 Sparrows Point, Md. B28.25	Waukegan, Ill. A78.90 Worcester, Mass. A7, T6.9.20	Johnstown, Pa. B2140	Pittsburgh O3, P149.85	Minnequa, Colo. C106.15 Pittsburgh J56.15
ROPE WIRE	Mild Imp. Plow Plow Plow	KansasCity, Mo. S5152 Kokomo, Ind C16142 Minnequa, Colo. C10146	Seattle B310.10 NAILS & STAPLES, Stock	Seattle B3
Bartonville, Ill. K4	8.55 8.55 8.80	Monessen, Pa. P7145 Pittsburg, Calif. C11160	to dealers & mfrs. (7) Col. AlabamaCity, Ala. R2118	
Cleveland A7	8.55 8.55 8.80	Portsmouth, O. (18) P12 147 Rankin, Pa. A7 140		Std. TeeRails Std. Std. All 60 lb
Johnstown, Pa. B2	8.55 8.55 8.80 8.55 8.55 8.80	So.Chicago, Ill. R2136 So.SanFran., Calif. C10160	Bessemer, Pa. U5	No. 1 No. 2 No. 2 Under 3.60 3.50 3.55 4.00 3.60 3.50 4.00
NewHaven.Conn. A7	8.85 8.85 9.10	SparrowsPoint,Md. B2142 Sterling,Ill.(1) N15140	Fairfield, Ala. T2	3.60 3.50 4.00 4.00 3.60 3.50 3.55
Palmer, Mass. W12	,,,,, 8.55 8.55 8.80	FENCE POSTS Col. ChicagoHts.,Ill. C2140 Duluth A7	Huntington, W. Va. W7	3.60 3.50 3.55
Roebling, N.J. R5 SparrowsPoint, Md. B2 Struthers, O. Y1	2 65 2 65 2 00	Franklin, Pa. F5140 Huntington, W.Va. W7130	Lackawanna B2	3.60 3.50 4.00 3.60 3.50 4.50
	8 85 8 85 9.10	Johnstonon, Pa. B2 140 Marion, O. P11 140	Steelton, Pa. B2	3.60 3.50 4.75
Waukegan, Ill A7 Worcester, Mass. J4 Worcester, Mass. T6	8.35 8.35 8.60 8.85 9.10	Minnequa, Colo. C10130 Moline, Ill. R2136	TOOL !	TEFI S
Ke	y to Producing Companie		Grade Cents per lb Grade Reg. Carbon23.00 18W,	
M1 McLouth Steel Corp. M4 Mahoning Valley Steel	P13 Precision Drawn Steel	T3 Tenn. Prod. & Chem. T4 Texas Steel Co.	Extra Carbon27.00 18W, Spec. Carbon32.50 19W.	4Cr,2V,9Co
M5 Medart Co. M6 Mercer Tube & Mfg. Co.	P14 Pitts.Screw & Bolt Co. P15 Pittsburgh Metallurgical P16 Page Steel & Wire Div.,	T5 Thomas Steel Co. T6 Thompson Wire Co. T7 Timken Roller Bearing	Oil Hardening35.00 18.25 Cr Hot Wrk35.00 20.25	W,4.25Cr,1V,4.75Co172.00 W,4.25Cr,1.6V,12.25Co 323.00
M9 Midvale Co. M10 Missouri-Illinois Furnace	Amer. Chain & Cable	T9 Tonawanda Iron Div. Am. Rad. & Stan. San.	Hi-Carbon-Cr63.50 1.5W 18W,4Cr,1V110.00 6.4W 18W,4Cr,2V124.50 6W,4	,4Cr,1V,8.5Mo78.50 ,4.5Cr,1.9V,5Mo84.00
	R1 Reeves Steel & Mfg. Co. R2 Republic Steel Corp.	U1 Ulster Iron Works U4 Universal Cyclops Steel	Tool steel producers includ C13, C18, D4, F2, H4, J3, L	e: A4, A8, B2, B8, C4, C9,
N2 National Supply Co.	R5 Roebling's Sons, John A.	U5 United States Steel Co. V2 Vanadium Alloys Steel V3 Vulcan Crucible Steel Co.		
	R7 Rotary Electric Steel Co.	V3 Vulcan Crucible Steel Co. W1 Wallace Barnes Co. W2 Wallingford Steel Co.	 Chicago base. Angles, flats, bands. Merchant. Philadelphia del. 	(25) Bar mill bands. (26) Reinforcing, to fabricators (%" bar elec. furn. billet,
N8 Newman-Crosby Steel N12 Niles Rolling Mill Co.	S1 Seneca Wire & Mfg. Co.	W3 Washburn Wire Corp. W4 Washington Steel Corp.	(6) Chicago of Birm. base. (7) To jobbers, 3 cols. lower.	(27) Bar mill sizes,
N14 Nrthwst. Steel Roll. Mills	S5 Sheffield Steel Corp. S6 Shenango Furnace Co.	W6 Weirton Steel Co. W7 W. Va. Steel & Mfg.Co.	(8) 16 gage and heavier. (9) 6 in, and narrower.	(28) Bonderized. (29) Subject to 10% increase.
N16 New Delphos Mfg. Co. 03 Oliver Iron & Steel Corp.	S7 Simmons Co. S8 Simonds Saw & Steel Co.	W8 West.Auto.Mach.Screw W9 Wheatland Tube Co. W10 Wheeling Steel Corp.	(11) Cleveland & Pittsburgh base. (12) Worcester, Mass. base. (13) Add 0.50c for 17 Ga &	(30) Sheared; add 0.35c for universal mill. (31) Not agreeded.
04 Oregon Steel Mills P1 Pacific States Steel Corp. P2 Pacific Tube Co.	S9 Sloss-Sheffield, S.&I. Co.S13 Standard Forgings Corp.S14 Standard Tube Co.	W10 Wheeling Steel Corp. W12 Wickwire Spencer Steel Div., Colo. Fuel & Iron	(13) Add 0.50c for 17 Ga & heavier. (14) Also wide flange beams. (15) 3/2" and thinner.	(31) Not annealed. (32) Rd. edge or square edge. (33) To Jobbers, deduct 20 cents. (34) 7 25c for cut lengths. (35) 72" and narrower. (36) 54" and narrower.
P2 Pacific Tube Co. P4 Phoenix Iron & Steel Co. P5 Pilgrim Drawn Steel	S15 Stanley Works S16 Struthers Iron & Steel	W13 Wilson Steel & Wire Co. W14 Wisconsin Steel Div.	(17) Flats only,	(31) TO KERG OF HRITEL! OF DE
P6 Pittsburgh Coke&Chem. P7 Pittsburgh Steel Co.	S17 Superior Drawn Steel Co. S18 Superior Steel Corp.	International Harvester W15 Woodward Iron Co.	(18) To dealers. (19) Chicago & Pittsburgh base. (20) Deduct 0.25c for untreated.	narrower. (38) 14 gage & lighter; 48" &
P9 Pittsburgh Tube Co. P11 Pollak Steel Co.	S19 Sweet's Steel Co. S20 Southern States Steel	W16 Worth Steel Co. W18 Wyckoff Steel Co. Y1 Youngston Sheet&Tube	(21) New Haven, Conn. base. (22) Del. San Fran. Bay area. (23) 28 Ga. 38" wide.	narrower. (39) 48" and narrower. (40) Lighter than 0.035"; 0.035"
P12 Portsmouth Division,	T2 Tenn. Coal, Iron & R.R.	11 Toungston Sheetwinde	(25) 28 (98, 38" Wide.	and heavier, 0.25c higher,

STANDARD PIPE, T. & C.

Size List		Pounds		Carload Discounts from List, % ———Black————————————————————————————————————					
Inches	Por Ft	Per Ft	A	В	C	D	E	F	
3/4	5.5c	0.24	34.0	32.0	29.0	1.5	+0.5	0.5	
1/4	6.0	0.42	28.5	26.5	26.0	+1.0	+3.0	0.5	
3/6	6.0	0.57	23.5	21.5	21.5	+7.0	+9.0	4.0	
1/3	8.5	0.85	36.0	34.0	35.0	14.0	12.0	13.0	
84	11.5	1.13	39.0	37.0	38.0	18.0	16.0	17.0	
1	17.0	1.68	41.5	39.5	40.5	21.5	19.5	20.5	
114	23.0	2.28	42.0	44.0	41.0	22.0	24.0	21.0	
11/2	27.5	2.78	42.5	41.5	41.5	23.0	21.5	22.0	
2	37	3.68	48.0	41.0	42.0	23.5	21.5	22.5	
21/4	58.5	5.82	48.5	41.5	42.5	24.0	22.0	23.0	
3	76.5	7.62	43.5	41.5	42.5	24.0	22.0	23.0	

Column A: Etna, Pa. N2; Butler, Pa. ¼-¾", F6; Benwood, W. Va., 3½ points lower on ¼", 1½ points lower on ¼", 1½ points lower on ½", and 2 points lower on ½", Willo; Sharon, Pa. M6, 1 point higher on ½", 2 points lower on ¼" and ¾"; following make ½" and larger: Lorain, O. N3; Youngstown R2 and 36½% on 3½" and 4"; Youngstown Y1; Aliquippa, Pa. J5. Fontana, Calif. K1 quotes 11½ points lower on ½" and larger continuous weid and 24% on 3½" and 4". Columns B & E: Sparrows Point, Md. B2.

Columns C & F: Indiana Harbor, Ind., 4" through 3", Y1; Alton, Ill. (Lorain base) L1.

Alton, Ill. (Lorain base) L1.

Column D: Butler, Pa. F6, ½-½"; Benwood, W. Va. W10, except plus 3½% on ½", plus 2½% on ½", plus 9% on %"; Sharon, Pa. M6, plus 0.5 on ½", 1 point lower on ½", ½", ½", 1½ points lower on 1" and 1½", 2 points lower on 1½", 2", 2½" and 3". Following quote only on ½" and larger: Lorain, O. N3; Youngstown R2, and 16½% on 3½" and 4"; Youngstown Y1; Aliquippa, Pa. J5 quotes 1 point lower on ¾", 2 points lower on 1", 1½ points lower on 1¼", 2 points lower on 1½" and 3"; Etna, Pa. N2 and 18½% on 3½" and 4".

SEAMLESS ELECTRIC				ad Discou	nts from Li Elec.	
Size	List	Pounds	Black	Galv.	Black	Gaiv.
Inches	Per Ft	Per Ft	A		C	D
2	37.0c	3.68	29.5	9.5	29.5	9.5
21/2	58.5	5.82	32.5	12.5	32.5	12.5
3	76.5	7.62	32.5	12.5	32.5	12.5
31/4	92.0 \$1.09	9.20 10.89	34.5	14.5 14.5	34.5 34.5	14.5 14.5
5	1.48	14.81	37.0	17.0	37.0	17.0
M	1.92	19.18	37.0	17.0	37.0	17.0
Column	A: A	liquippa	J5; Ami	oridge N	2; Lorai	n N3;

Column B: Aliquippa J5 quotes $1\frac{1}{2}$ pts lower on 2^{n} , 1 pt lower on $2\frac{1}{2}$ -6 in.; Lorain, N3; Youngstown Y1.

Columns C & D: Youngstown R2.

BOILER TUBES

Net base c.l. prices, dollars per 100 ft, mill; minimum wall thickness, cut lengths $10\ \text{to}\ 24\ \text{ft.}$ inclusive.

O.D.	B.W	—Sean	iless—	Elec. Weld	
In.	Ga.	H.R.	C.D.	H.R.	C.D.
1	13	13.45	16.47	15.36	15.36
11/4	13	16.09	19.71	15.61	18.19
1 1/2	13	17.27	21.15	17.25	20.30
1 3/4	13	19.29	23.62	19.62	23.09
2	13	21.62	26.48	21.99	25.86
21/4	13	24.35	29.82	24.50	28.84
21/4	12	26.92	32.97	26.98	31.76
21/2	12	29.65	36.32	29.57	34.76
2 3/4	12	32.11	39.33	31.33	36.84
3	12	34.00	41.64	32.89	38.70

CLAD STEELS

(Cents per pound)

(Conta per pounts)							
Cladding Stainless		ates n Base 20%	Cold-	Rolled n Base Both Sides	Carbon	Sheets-	Cu Base Both Sides
		28.00- 29.50		:	19.75 20.75- 24.50	27.50 27.50	77.00 77.00
310 316	30.50 36.50 29.50	35.00 41.00 31.50- 34.00	• • • •	• • • •	26.00	36.50	144.00
318 321	34.50 33.50 26.50 27.50	39.00 38.00 31.00 30.50-			23.00 24.00	33.00 33.50	111.00 130.00
405 410 Nickel	21.25 20.75	32.00 27.75 27.25					• • • •
Inconel.	33.25 41.00 34.75	44.25 53.50 45.75	41.00 23.70†	54.00 29.65‡	• • • • •	• • • •	165.00

* Deoxidized. † 20.20c for hot-rolled. ‡ 26.40c for hot-rolled. Production points for carbon base products: Stainless plates, sheet, Conshohocken, Pa. A3 and New Castle, Ind. I-4; stainless-clad plates, Claymont, Del. Wife, Coates-ville, Pa. L7 and Washington, Pa. J3; nickel, inconel, monel-clad plates, Coatesville L7; nickel, monel, copper-clad strip, Carnegie, Pa., S18. Production point for copper-base sheets is Carnegie, Pa. A13.

BOLTS. NUTS

CARRIAGE, MACHINE BOLTS (F.o.b. midwestern plants; per cent off list for less than case lots to consumers) case lots to consumers)
6 in. and shorter:

½-in. & smaller diam. 15

½-in. & %-in. 18.5

¾-in. and larger.... 17.5

Longer than 6 in.: All diams.
Lag bolts, all diams.:
6 in. and shorter ...
over 6 in. long
Ribbed Necked Carriage Blank

 Blank
 3*

 Plow
 34

 Step, Elevator, Tap, and Sleigh Shoe
 21

 Tire bolts
 12

 Boiler & Fitting-Up bolts
 31

 NUTS

H.P. & C.P. Reg. Heav Square:

½-in, & smaller 15

½-in, & smaller 15

½-in, & ½-in, 12

½-in, & ½-in, 9

1%-in, & januare 7.5

H.R. Hex.:

½-in, & smaller 26

½-in, & januare 7.5

½-in, & januare 7 H.P. & C.P. Reg. Heavy

SEMIFINISHED NUTS

American Standard
(Per cent off list for less
than case or keg quantities) than case or keg quantities)

Hvy. Reg.
4-in. & smaller... 35 28.5
4-in. & 4-in. ... 29.5 22
4-in.4-in. ... 24 15
4-in. & larger... 13 8.5 Light 7-in. & smaller ½-in. to %-in. 28.5 %-in. to 1½-in. 26

HEXAGON CAP SCREWS

HEXAGON CAP SCREWS
(1020 steel; packaged; per
cent off list)
6 in. or shorter:
%-in. & smaller ... 47
%-in. through 1 in. ... 40
Longer than 6 in.:
%-in. & smaller ... 33
%-in. through 1 in. ... 18

SQUARE HEAD SET SCREWS (Packaged; per cent off list 1 in. diam, x 6 in. and

HEADLESS SET SCREWS (Packaged; per cent off list) No. 10 and smaller ... 41 ¼-in, diam. & larger .. 24 N.F. thread, all diams... 18

10,12

F.o.b. midwestern plants Structural 1/2-in., larger 7 ** Structural 1/2-in., larger 7.85c 7/8-in, under 36 off

WASHERS, WROUGHT o.b. shipping point, to jobbersList to 50c off

ELECTRODES

Threaded, with nipples, un-

b	oxed, f.o	b.	plant)
	GRAF	HITI	E
	-Inches-		Cent
Diam.	Le	ngth	per l
17,18.	20 60,7	2	17.0
8 to 1	8 48,6	30,72	17.0
7	48,6	0	18.6
6	48,6	0	19.9
4,51/8	40		20.4
3	40		21.5
21/2	24,3	0	22.0
2	24,3	0	24.1
	CAR	BON	
40	100.1		7.6
35	100.1	10	7.6
30	84.1	10	7.6
24	72 to 1	04	7.6
17 to 2	20 34.9	0	7.6
14	60.7	2	8.1

STAINLESS STEEL

7	Sheets	C.R. Strip	Wire Struc- turals
Type			
301	41.00	34.00	31.25
302	41.00	36.50	31.25
303	43.00	40.00	33.75
304	43.00	38.50	32.75
309	55.50	54.50	44.25
316	56.50	58.50	48.75
321	49,00	48.00	36.75
347	53.50	52.00	41.25
410	36.50	30.50	25.75
416	37.00	37.00	26.25
420	44.00	47.00	31.25
430	39.00	31.00	26.25
501	27.50	26.00	14.25
502	28.50	27.00	15.25
Bracke	nridge	Pa shee	te A4

Carnegie, Pa., sheets and strip except Types 303, 416, 501 & 502, S18.

Cleveland, strip A7.

Dunkirk, N.Y., bars, wire A4. Duquesne, Pa., bars U5.

Harrison, N. J., strip C18. McKeesport, Pa., bars, sheets except Type 416 U5.

McKeesport, Pa., bars & wire except Types 301, 309, 501 & 502; strip Types 410 & 430 only F2.

Middletown, O., sheets and strip except Types 303, 416, 420, 501 and 502 A10. Midland, sheets & strip C18.

Munhall, Pa., bars U5. Pittsburgh, sheets C18.

Sharon, Pa., strip, except Types 303, 309, 316, 416, 501 and 502 S3.

So. Chicago, Ill., bars & structurals U5. Syracuse, N. Y., bar & structurals C18. bars, wire

Titusville, Pa., bars, U4. Wallingford, Conn., strip, except 309, W2 quotes 0.25

cents higher.

Washington, Pa., bars, sheets & strip, except Type 309 sheets 56.00c and bars 44.75c, J3.

FLUORSPAR

Hetallurgical grade, f.o.b. tive switching charge of; shipping point, in Ill., Ky., *, \$1.00; †, \$1.45, one-track net tons, carloads, effective charge being \$1.20, two CaF's content, 70% or more, tracks \$1.40, and three or \$41; less than 60%, \$38. more tracks \$1.50, \$0r Imported, net ton, duty paid, within \$4.15 freight zone metallurgical grade, \$33-\$35, from works.

METAL POWDERS

(Per pound, f.o.b. shipping point in ton lots for minus 100 mesh, except as other-wise noted.) Sponge Iron Cents
98+% Fe, carlots.. 16.00
Swedish, c.i.f. New
York, in bags ...7.40-8.50 YOR, in Dags ... 40-30 Electrolytic Iron: Annealed, 99.5% Fe. 42.50 Unannealed, 99+% Fe. 36.50 Unannealed, 99+% Fe(minus 325 mesh) 58.50 Powder Flakes ... 48.50 Carbonyl Iron: Carbonyl Iron: 97.9-99.8%, size 5 to 10 microns..83.00-148.00 Aluminum:
Carlots, freight
allowed 29.50
Atomized, 500 lb
drums, freight al-Bridgeville, Pa., bars, wire, Brass, 10-ton lots 30.00-33.25 sheets & strip U4. Copper: Electrolytic ... Minus 100-mesh ... 57.00 Minus 35 mesh ... 52.00 Minus 200 mesh ... 62.00 Nickel unannealed Nickel-Silver, 10-ton lots | metal | | 8.50 | Gary, Ind., sheets except Stainless Steel, 302 ...\$1.25 | Type 416 U5. | Tin | S1.69 Zinc, 10-ton lots. 23.00-30.50
Tungsten: Dollars
99%, minus 80 to 200
mesh, freight allowed:
over 1000 lb ... 2.90
1000 lb ... 2.95
Less than 1000 lb ... 3.00
98.8% minus 65 mesh,
freight allowed:
1000 lb and over ... 4.15
less than 1000 lb ... 4.25 Molybdenum: Molybdenum: 99%, minus 80 to 200 mesh, over 500 lb 2.85 200 to 500 lb . . . 3.10 less than 200 lb . . 3.25 Chromium, electrolytic 99% Cr min. . . 3.50

METALLURGICAL COKE Price per net ton BEEHIVE OVENS

Connellsvil, fur. \$14.50-15.00 Connellsvil, fdry. 17.00-18.00 New River, foundry ...19.50 Wise county, foundry. 1.55 Wise county, furnace. 15.20

OVEN FOUNDRY COKE

Cents higher.

Washington, Pa., bars, sheets & strip, except Type 309 sheets 56.00c and bars 44.75c, J3.

Washington, Pa., Types 301 through 347 sheets & strip as listed except 303 & 309; 316 sheets 61.50c, strip 63.00c, W4.

Waitervilet, N. Y., structurals & bars A4.

Waukegan, bars & wire A7.

West Leechburg, Pa., strip A4.

COAL CHEMICALS

Spot, cents per gallon, ovens Pure benzol ...30.00-35.00

Toluol, one deg...26,00-33.00

Toluol, one deg...26,00-33.00

Industrial xylol ...25 00-33.50

Syst Louis A4.

CVEN FOUNDRY COKE

Kearney, N. J., ovens, \$22.75

Everett. Mass., ovens

New England, del. ...24.80

Chicago, del. ...24.91

Terre Haute, ovens ...22.50

Milwaukee, ovens ...23.75

Indianapolis, ovens ...22.75

Cincinnati, del. ...26.65

Spot, cents per gallon, ovens

Birmingham, del. ...26.72

Erie, Pa., ovens ...23.50

Birmingham, del. ...26.09

Simplication ovens ...20.30

Simplication ovens ...22.70

Nevillesiand, Pa., ovens ...22.00

Swedeland, Pa., ovens ...22.00 | Toluol, one deg... 23,00-33.00 | NevilleIsland, Pa., ovens. 22,00 | Swedeland, Pa., ovens. 24,25 | Swedeland, Pa., ovens. 24,26 | Swedeland, Pa., ovens. 22,20 | Swedeland, Pa., ovens.

Includes

WAREHOUSE STEEL PRODUCTS

(Prices, cents per pound, for delivery within switching limits, subject to extras)

		——5HEETS—					BARS		Standard		
	H.R. 18 Ga.,		Gal.		RIP			H.R. Alloy	Structural	P1.	ATES
	Heavier*	C.R.	10 Ga.†	H.R.*	C.R.*	H.R. Rds.	C.F. Rds.	4140\$	Shapes	Carbon	. Floor
New York(eity)	6.27	7.29	8.44	6.59	***	6.42	7.29	9.25	6.40	6.58	8.04
New York (e'try)	5.97	6.99	8.14	6.29	***	6.12	6.99	8. 9 5	6.10	6.28	7.74
Boston (city)	6.40	7.20	8.49	6.35	***	6.25	7.04	9.25	6.40	6.98	7.58
Boston (e'try) .	6.20	7.00	8.29	6.15	***	6.05	6.84	9.05	6.20	6.78	7.68
Phila. (city) Phila. (c'try)	7.15	7.05	8.25	6.35	• • •	6.30	7.11	8.90	6.15	6.30	7.40
3-74 6.14 5	6,90	6.80	8.00	6.10	***	6.05	6.86	8.65	5.90	6.05	7.15
Balt. (city) Balt. (c'try)	5.80 5.60	7.04	8.27	6.24	• • •	6.24	7.09		6.34	6.00	7.64
Norfolk, Va		6.84	8.07	6.04	• • •	6.04	6.89	***	6.14	5.80	7.44
	6.50	* * *	***	6.79	***	6.55	7.70	***	6.60	6.50	8.90
Richmond, Va	5.90		8,10	6.10		6.10	6.90	* * *	6.30	6.05	7.80
Wash. (w'hse).	6.02	7.26	8.49	6.46		6.46	7.26		6.56	6.22	7.86
Buffalo (del.)	5.80	6.60	8.29	6.06		5.80	6.65	10.65††8	6.00	6.25	7.55
Buffalo (w'hse)	5.60	6.40	8.09	5.86	***	5.60	6.45	10.45††8	5.80	6.05	7.35
Pitts, (w'hse).	5.60	6.40°	7.75	5.65-5.95	6.90	5.55	6.40	10.1011	5.70	5.75	7.00
Detroit (w'hse).	5.45-5.78 6.	58-6.80	7.99	5.94-5.95	7.75	5.84	6.56	8.91	6.09	6.19-6.35	7.28
Cleveland (del.)	. 5.80	6.60	8.30	5.89	7.10	5.77	6.60-6.70	8.91	10.02	6.12	7.32
Cleve. (w'hse) .	5.60	6.40	8.10	5.69	6.90	5.57	6.40-6.50	8.71	5.82	5.92	7.12
Cincin. (city)	6.02	6.59	7.34	5.95		5.95	6.51		6.24	6.34	7.50
Chicago (city) .	5.80	6.60	7.95	5.75	• • •	5.75	6.50	19.39	5,96	6.00	7.20
Chicago (w'hse)	5.60	6.40	7.75	5.55	• • •	5.55	6.30	10.10	5.70	5.80	7.00
dilwaukee (city)	5.94	6.74	8.09	5.89	• • •	5.89	6.74	10.44	6.04	6.14	7.34
Milwau. (c'try)	5.74	6.54	7.89	5.69		5.69	6.54	10.24	5.84	5.94	7.14
St. Louis (del.)	5.68	6.48	7.28	5.63	• • •	5.63	6.28	10.08††8	5.78	5.93	7.13
st. L. (w'hse).	5.48	6.28	7.08	5.43	***	5.43	6.08	9.88††5	5.58	5.73	. 6.93
Kans. City(city)	6.40	7.20	8.40	. 6.35		6.35	7.20		6.50	6.60	7.80
KansCity(w'hse)	6.20	7.00 %	8.20	. 6.15 6.15	***	6.15	7.00	* * *	6.30	6.40	7.60
maha, Nebr	6.13‡		8.33	6.13		6.18	6.98		6.18	. 6.38	7.83
Birm'hm(city) .	5.75	6.55	6.904	5.70		5.70	7.53		5.85	6.10	8.25
Birm'hm(w'hse)	5.60	6.40	6.752	5.55		5.55	7.53		5.70	5.95	8.23
Los Ang. (city)	6.55	8.10	9.05*	6.60	8.90	6.55	7.75		6.55	6.60	9.20
L. A. (w'hse)	6.35	7.90	8.85	6.40	8.70	6.35	7.55	***	6.35	6.40	8.70
San Francisco	6.65	7.804	8.903	6.60		6.45	8.20		6.45	6.50	8.60
Beattle-Tacoma.	7.05	8.608	9.20	7.30		6.75	9.10	11.15	6.65	6.75	8.80
a Driege do n	es abutant to	co extros d	malaan ina	na anana ah	d souther out	was avant	Dieminchen	(acating and	na amaludadi	T	

* Prices do not include gage extras; † prices include gage and coating extras, except Birmingham (coating extra excluded) and Los Angeles (gage extra excluded); † includes extra for 10 gage; † as rolled; †† as annealed. Base quantities, 2000 to 9999 lb except as noted; Cold-rolled strip, 2000 lb and over; 2—500 to 1499 lb; 2—450 to 1499 lb; 4—3500 lb and over; 8—1000 to 1999 lb.

REFRACTORIES

(Prices per 1000 bricks, f.o.b. plant)

(Prices per 1000 bricks, f.o.b. plant)

FIRE CLAY BRICK

Super Duty: St. Louis, Vandalia, Farber, Mexico, Mo., Olive Hill, Hayward, Ashland, Ky. Clearfield, Curwensville, Pa., Ottawa, Ill., \$116.60. Hard-fired, St. Louis, Vandalia, Mo., Dive Hill, Ky., \$156.20. High-Heat Duty: Salina, Pa. \$99.60; Wood-oridge, N. J., \$156.20. Farber, Vandalia, Mo., West Decatur, Orviston, Clearfield, Beach Creek, Curwensville, Lumber, Lockhaven, Pa., Olive Hill, Hitchins, Haldeman, Ashland, Ky., Troup, Athens, Tex., Stevens Pottery, Ga., Bessemer, Ala., Portsmouth, Oak Hill, O., Ottawa, Ill., \$94.60. Intermediate-Heat Duty: St. Louis, Farber, Vandalia, Mo., West Decatur, Orviston, Beach Creek, Curwensville, Lumber, Lockhaven, St. Marys, Clearfield, Pa., Olive Hill, Hitchins, Haldeman, Ashland, Hayward, Ky., Athens, Froup, Tex., Stevens Pottery, Ga., Portsmouth, O., Ottawa, Ill., \$88; Bessemer, Ala., \$79.20. Low-Heat Duty: Oak Hill, or Portsmouth, O., Ottawa, Ill., \$88; Bessemer, Ala., \$79.20. Low-Heat Duty: Oak Hill, or Portsmouth, O., Ottawa, Ill., \$70. LADLE BRICK
Dry Press: Chester, New Cumberland, W. Va., Preeport, Merill Station, Clearfield, Pa., Ironiale, Wellsville, O., \$66. Wire Cut: Chester, Wellsville, O., \$64. MalteAsle Bung Brick
St. Louis, Vandalia, Farber, Mo., Olive Hill, Ky., \$105.60; Beach Creek, Pa., \$94.60; Ottawa, Ill., \$90. StillCa Brick
Mt. Union, Claysburg, or Sproul, Pa., Ports-

Mt. Union, Claysburg, or Sproul, Pa., Ports-nouth, O., Ensley, Ala., \$94.60; Hays, Pa., 100.10; Joliet, Rockdale, Ill., E. Chicago, nd., \$104.50; Lehi, Utah, Los Angeles, \$111.10.

111.1.0.

Sastern Silica Ooke Oven Shapes (net ton):

Slaysburg, Mt. Union, Sproul, Pa., Birming
sam, \$92.40.

Shinois Silica Coke Oven Shapes (net ton):

foliet or Rockdale, Ill., E. Chicago, Ind.,

flays, Pa., \$93.50.

BASIC BRICK
Per net ton. Baltimore or Chester, Pa. Burned
chrome brick, \$73-\$78; chemical-bonded chrome
brick, \$77-\$82; magnesite brick, \$99-\$104;
chemical-bonded magnesite, \$88-\$93.

MAGNESITE
Per net ton, Cheweiah, Wash. Domestic deadburned, %" grains; bulk, \$36.30; single paper
bags, \$41.80.

Pags, \$\frac{\pmathbf{1}}{2}\$. DOLOMITE

Per net ton. Domestic, burned bulk; Bonne

Perre, Mo., \$\frac{\pmathbf{1}}{2}\$. Martin, Millersville, Narlo,

Clay Center, Woodville, Gibsonburg, Bettsville,

D., Billmeyer, Plymouth Meeting, Blue Bell,

Williams, Pa., Millville, W. Va., \$\frac{\pmathbf{1}}{2}\$.

ORES

LAKE SUPERIOR IRON ORE

Gross ton, 51½% (natural), lower lake ports.
After adjustment for analysis, prices will be
increased or decreased as the case may be for
increases or decreases after Dec. 2, 1950 in
applicable lake vessel rates, upper lake rail
freights, dock handling charges and taxes
thereon.

Old range	bessem	er	 	 	 	 		\$8.70
Old range								8.55
Mesabi bes								8.45
Mesabi non								8.30
High phosp	horus		 	 		 	٠	8.30

FOREIGN ORE
Cents per unit, c.i.f. Atlantic ports
Swedish basic, 60 to 68%:

TUNGSTEN ORE Net ton unit, duty paid Foreign wolframite and scheelite, per net

MANGANESE ORE
Long term contracts, nominal; nearby, 48%, duty paid, 79.8c-51.8c per long ton unit, c.i.f. U. S. ports; prices on lower grades adjusted to manganese content and impurities.

CHROME ORE
Gross ton, f.o.b. cars, New York, Philadelphia,
Baltimore, Charleston, S. C., plus ocean
freight differential for delivery to Portland,
Oreg., or Tacoma, Wash.

 Indian and African
 \$32.50

 48% 2.8:1
 \$30-36.00

 48% 1:1
 35.00-36.00

 48% no ratio
 26.00

 South African Transvaal
 \$19.50

 45% no ratio
 20.00

 48% no ratio
 22.00

 48% no ratio
 22.00

 50% no ratio
 28.00-28.50

 Brazilian
 \$32.00

 Rhodesian
 \$20.00-21.00
 Indian and African

45% no ratio \$20.00-21.00 48% no ratio 26.00 48% 3:1 lump 35.00-36.00 Domestic—rail nearest seller 48% 3:1 \$39.00

FERROALLOYS MANGANESE ALLOYS

Spiegeleisen: (19-21% Mn, 1-3% Si). Carlot per gross ton, \$70, Palmerton, Pa.; \$71, Pittsburgh and Chicago; (16% to 19% Mn) \$1 per

burgh and Chicago; (16% to 19% Mn) \$1 per ton lower. Standard Ferromanganese: (Mn 78-82%, C 7% approx.) Carload, lump, bulk \$185 per gross ton of alloy, c.l., packed, \$197; gross ton lots, packed, \$212; less gross ton lots, packed, \$229; f.o.b. Alloy, W. Va., Niagara, Falls, N. Y., Welland, Ont., or Ashtabula, O. Base price: \$187, Johnstown, Pa.; \$185, Sheridan, Pa.; \$188, Etna, Pa.; \$190, Chattanooga, Tenn, Shipment from Paeific Coast warehouses by one seller add \$33 to above prices, f.o.b. Los Angeles, Oakland, Portland, Oreg. Shipment from Chicago warehouse, ton lots \$227; less gross ton lots, \$244 f.o.b. Chicago, Add or subtract \$2.15 for each 1% or fraction thereof, of contained manganese over \$2% and under 78%, respectively.
Low-Carbon Ferromanganese, Regular Grade: (Mn \$5-90%), Carload, lump, bulk, max.

under 75%, respectively.

Low-Carbon Ferromanganese, Regular Grade: (Mn 85-90%). Carload, lump, bulk, max. 0.07% C, 25.75e per lb of contained Mn, earload packed 26.5c, ton lot 27.6c, less ton 28.3c. Delivered. Deduct 0.5c for max, 0.15% C grade from above prices, 1c for max. 0.30% C, 1.5c for max. 0.50% C, and 4.5c for max. 75% C—max, 7% Sl. Special Grade: (Mn 90% min., C 0.07% max., P 0.06% max.). Add 0.5c to above prices. Spot, add 0.25c. Medium-Carben Ferromanganese: (Mn 80-85%, C 1.5% max.). Cartoad, lump, bulk 19.15c per lb of contained Mn, carload packed 19.9c, ton lot 21.0c, less ton 22.2c. Delivered. Spot, add 0.25c.

add 0.26c Manganese Metal, 2" x D (Mn 96% min., Fe 2% max., Si 1% max., C 0.2% max.): Carload lump bulk, 29c per lb of metal; packed, 29.75c; ton lot 31.25c; less ton lot 33.25c. Delivered. Spot, add 2c. Manganese, Electroytie: 250 lb to 1999 lb, 32c; 2000 to 39.999 lb, 30c; 40,000 lb or more, 28c. Premium for hydrogen-removed metal 1.5c per pound, f.o.b. cars Knoxville, Tenn. Freight allowed to St Louis or to any noint east of

pound, f.o.b. cars Knoxville, Tenn. Frei allowed to St. Louis or to any point east

Mississippi. Silicomanganese: (Mn 65-68%). Contract, lump bulk, 1.55% C grade, 18-20% SI 9.90e per lb of alloy, carload packed, 10.56c, ton lot 11.55c, less ton 12.55c. Freight allowed. For 2% C grade, SI 15-17%, deduct 0.2c from above prices. For 3% C grade, SI 12-14.5%, deduct 0.5c from above prices. Spot, add 0.25c.

CHROMIUM ALLOYS

High-Carbon Ferrochrome: Contract, c.l., lump, bulk 21.75c per lb of contained Cr. c.l., packed 22.65c, ton lot 23.80c, less ton 25.20c. Delivered. Spot. add 0.25c. "SM" High-Carbon Ferrochrome: (Or 60-68%, (Please turn to page 145)

Tin Prices Rise to All-Time High

Advance is attributed to heavy purchasing in the Far East by countries other than United States. NPA amends order to insure maximum use of tin scrap.

New York—Tin, mercury and silver prices rose sharply here last week, reflecting developments in foreign markets. Straits tin prices here advanced to an all-time high, following renewed strength at Singapore and London. The advance in the Far East is attributed to heavy buying by countries other than the United States. Mexico and Argentina, for instance, have been buying far in excess of their normal requirements.

National Production Authority has amended order M-8 to insure maximum use of tin scrap in the production of pig tin, alloys and chemicals. Smelters and refiners of secondary tin are permitted to use as much tin scrap and other secondary tin bearing materials that results from normal processing in the production of pig tin, alloys or chemicals.

As the stringency in nonferrous metals increases, the government is intensifying its efforts to conserve supplies for essential uses and to stabilize prices. Representatives of copper refiners, brars and bronze ingot makers and scrap metal concerns met in Washington last week with officials of the Economic Stabilization Agency. One of the current problems in the red metal industry which undoubtedly was discussed is the inability of refiners to obtain scrap due to high prices paid by ingot makers.

Record Shipments—Deliveries of zinc to domestic consumers increased to 72.276 tons in December from 69, 202 tons in November, making the 1950 total 849.189 tons, an increase of 200.904 tons over the 1949 total and representing an all-time record high. Production increased to 80.007 tons from 79.226 tons in November, making the total for the year 910,375 tons against 870,113 tons in the preceding year. This was the third largest production, output having amounted to 971.873 tons in 1943 and 929.770 tons in 1942. Total deliveries on government account came to 128,256 tons last year compared with 91.526 tons in 1949.

Zinc purchases for the federal stockpile will be discontinued over the remainder of the fiscal year ending next June 30. This policy was decided on because of the tight supply situation in the metal.

Smelters' stocks of slab zinc dropped to only 8962 tons at the end of the year, the smallest recorded since November, 1925. Unfilled orders on their books total 74,795 tons compared with 60.779 tons at the end of November.

Aluminum Project Progresses

Montreal, Que. — Agreement that will lead to a \$500 million project for making aluminum in western Canada has been signed by the British Columbia government and Aluminum



AT OUR DISPOSAL: German Pico, Chilean government official, says his country's available resources in copper, nitrate, lumber and other vital materials will be used to help the U.S. rearmament program. He went to Washington to confer on full production and further industrialization of Chile's important resources

Co. of Canada Ltd. The company has received water power rights for a vast hydroelectric power project, representing the first step toward construction of a giant aluminum plant at or near Kitimat, B. C., about 400 miles north of Vancouver, Wash.

The plant would produce an estimated 1.1 billion pounds of aluminum a year, bringing the Canadian industry's total output to 2.5 billion pounds annually.

Certain features of the agreement require approval by the British Columbia legislature and for that reason E. T. Kenney, provincial lands minister, said "We are unable to say anything more than negotiations started in 1947 have received the final touches."

Silver Prices Rise Sharply

New York—Handy & Harman advanced its selling price on silver 10.16 cents an ounce to the basis of 90.16c an ounce. This is the first price increase since Oct. 24, 1950, when the price was raised 2.25 cents an ounce to 80.00c. Handy & Harman said, in announcing the increase:

"Because of the lack of any transactions in the silver market on Jan. 5, the orders carried over plus today's (Monday) demand were greater than the amount of foreign silver available. Accordingly it became necessary to purchase newly mined domestic silver at the same price which the United States Treasury pays under existing law, namely 90.50 cents per ounce 1.000 fine, the equivalent of 90.41c for commercial bar silver 0.999 fine. On this basis our Jan. 8 published quotation is 90.16c, representing as usual the price of silver contained in ores and other unrefined silver bearing materials."

The Bank of Mexico, which previously had been a supplier, has withdrawn at least temporarily as a seller. Silver stocks held by the Bank, it is reported, are sufficient to take care of only the coinage this year of new Mexican five-peso silver coins.

Bronze Bearings Inc. Formed

Cranford, N. J.—Bronze Bearings Inc. has been organized as a sales affiliate of the S. & H. Bronze Bearings Inc., this city, producer of bronze bearings and nonferrous castings. The operating company was formed last August to acquire the property of the S. & H Bronze Bearings Corp. Sidney Hausman is president. Since acquisition of the property, the new company has added facilities to both its foundry and machine shop. The plant has capacity of 5000 pounds per 8-hour shift.

Aluminum Foundry Sold

Cincinnati — Aluminum Foundry Co., this city, has been purchased by Richard T. Stanton, formerly general manager of the concern. Mr. Stanton bought the business from Emili Albrecht, who operated the company for 20 years and who is retiring after 45 years in the foundry business. Mr. Stanton has filed application for a charter for the new company, which will be known as the Aluminum Foundry Co. Inc. He will be president.

Quicksilver Prices Soar

New York—Sellers of quicksilver here withdrew from the market last week, pending a clarification of the price picture. Based on foreign prices the market here is around \$182.50 duty paid, New York. Prices soared more than 20 per cent on Jan. 8 to a price range of \$162.40 to \$165.20 per flask in the United Kingdom. This compares with the previous price range of \$134.40 to \$135.80.

Major Italian producers of quick-silver raised their selling price for home consumption to 70,000 Lire per lask of 76 lb at the mines, equivalent to \$96.42 a flask. This is ar increase of 10,000 Lire, or \$13.78, 2 flask over the former price. The Italian producers have been out of the market as sellers of the metal for export for several months. Supplies in Italy continue limited. Small stocked above ground, coupled with domestic and other large commitments for the metal, leave Italian producers still unable to re-enter the market for exports.

Principal producers in Spain ad vanced their selling price \$30 to the basis of \$160, f.o.b. Spanish ports.

NONFERROUS METALS

(Cents per pound, cariots, except as otherwise noted)

rimary Metals

pper: Electrolytic 24.50c. Conn. Valley; ke 24.61½c, delivered.
ass Ingots: 85-5-5-5 (No. 115) 29.00c; -10-2 (No. 215) 43.25c; 80-10-10 (No. 305) .00c; No. 1 yellow (No. 405) 25.50c.
nc: Prime western 17.50c; brass special .75c; intermediate 18.00c, East St. Louis; ch grade 18.60c, delivered.
ad: Common 16.80c; chemical 16.90c; cording 16.90c, St. Louis.
imary Aluminum; 99% plus, ingots 19.00c.

ding 16.90c, St. Louis.

imary Aluminum: 99% plus, ingots 19.00c, ss 18.00c. Base prices for 10.000 lb and er. Freight allowed on 500 lb or more but in excess of rate applicable on 30,000 lb orders.

condary Aluminum: Piston alloys 30.50-.75c; No. 12 foundry alloy (No. 2 grade) .00-30.75c; steel deoxidizing grades, notch rs. granulated or shot: Grade 1, 32.25-.50c; grade 2, 30.50-30.75c; grade 3, 29.50-.75c; grade 4, 29.00-29.50c. Prices include eight at c.l, rate up to 75 cents per 100 lb agnesium: Commercially pure (99.8%) standid ingots, 10,000 lb and over 24.50c; f.o.b. ceport, Tex.

11: Grade A, Spot, prompt. 173.00c: Jan.

id ingots, 10,000 lb and over 24.50c, f.o.b. reeport, Tex.

"II: Grade A, spot, prompt, 173.00c; Jan. 2.00c; Feb. 170.00; Mar, 168.00.

"Itimony: American 99-99.8% and over but t meeting specifications below 32.00c; 99.8% do over (arsenic 0.65% max; other impurise 0.1% max.) 32.50c; fo.b. Laredo, Tex., r bulk shipments. Foreign, 99%; Chinese .00c; English, 32.75c; Belgian, 32.75c, duty id, New York.

"ickel: Electrolytic cathodes, 99.9%, base sizes refinery; unpacked, 50.50c; 25-lb pigs, 155; "XX" nickel shot, 54.15c; "F" nickel of or ingots, for addition to cast iron, .00c. Prices include import duty.

"ercury: Open market, spot, small lots, New DYK, \$182.50 nominal, per 76-lb flask, eryllium-Copper: 3.75-4.25% Be, \$1.56 per of alloy, f.o.b., Reading, Pa.

admium: "Regular" straight or flat forms, .55 del; special or patented shapes \$2.80. bbalt: 97.99%, \$2.10 per lb for 500 lb (kegs); 2.12 per lb for 100 lb (case); \$2.17 per lb oder 100 lb.

old: U. S. Treasury, \$35 per ounce. lver: Open market, New York 90.16c per oz. latinum: \$90-593 per ounce from refineries. aladium: \$24 per troy ounce. idium: \$220 per troy ounce.

Itanium (sponge form): \$5 per pound.

Rolled, Drawn, Extruded Products

COPPER AND BRASS

(Base prices, cents per pound, f.o.b. mill)
heet: Copper 39.93-41.68; yellow brass 36.898.28; commercial bronze, 95%, 39.91-41.61;
0%, 39.48-41.13; red brass, 85%, 38.54-40.14;
0%, 38.12-39.67; best quality, 39.15; nickel
lver, 18%, 50.57-51.9; phosphor-bronze
rade A, 5%, 58.49-60.20.

raus A, 5%, 58.49-60.20.
cods: Copper, hot-rolled 35.78-37.53; cold-rawn 37.03-38.78; yellow brass free outting, 1.26-32.63; commercial bronze, 95%, 39.60-1.30; 90%, 39.17-40.82; red brass 85%, 38.23-9.83; 90%, 37.81-39.36.

eamless Tubing: Copper 39.97-41.72; yellow rass 39.87-41.29; commercial bronze, 90%, 2.14-43.79; red brass, 85%, 41.45-43.05; 80%,

24.98. Viroi Yellow brass 37.15-28.57; commercial ronze, 95%, 46.20; 90%, 38.77-41.42; red rass, 85%, 38.83-40.43; 80%, 38.41-29.96; est quality brass, 39.44.

fopper Wire: Bare, soft, f.o.b, eastern mills, l. 28.67-29.42, l.c.l. 29.17-29.92, 100,000 lb ocs 28.545-29.295; weatherpreof, f.o.b, eastern lilks, c.l. 29.60, l.c.l. 30.10, 100,000 lb lots 9.35 magnet, del., 15,000 lb or more 34.50, a.l. 36.26.

ALUMINUM

(30,000 lb base; freight allowed on 500 lb or more, but not in excess of rate applicable on 30,000 lb e.l. orders.) Sheets and Circles: 2S and 3S mill finish c. Colled

				Colleg
Thickness	Widths or	Flat	Coiled	Sheet
Range.	Diameters,	Sheet	Sheet	Circlet
Inches	In., Incl.	Base*	Base	Base
0.249-0.136	12-48	30.1		
0.185-0.098	12-48	30.6		
0.095-0.077	12-48	31.2	29.1	33.2
0.076-0.061	12-48	31.8	29.3	33.4
0.060-0.048	12-48	32.1	29.5	33.7
0.047-0.038	12-48	32.5	29.8	34.0
0.037-0.030	12-48	32.9	30.2	34.6
0.029-0.024	12-48	33.4	30.5	35.0
0.023-0.019	12-36	34.0	31.1	35.7
0.018-0.017	12-36	34.7	31.7	36.6
0.016-0.015	12-36	35.5	32.4	37.6
0.014	12-24	36.5	33.3	38.9
0.013-0.012	12-24	37.4	34.0	39.7
0.011	12-24	38.4	35.0	41.2
0.010-0.0095	12-24	39.4	36.1	42.7
0.009-0.0085	12-24	40.6	37.2	44.4
0.008-0.0075	12-24	41.9	38.4	46.1
0.007	12-18	43.3	39.7	48.2
0.006	12-18	44.8	41.0	52.8

* Lengths 72 to 180 inches. † Maximum dineter, 26 inches.

Screw Macmine			
Diam. (in.)	-Round-	Hexag	gonal
or distance	R317-T4.		
across flats	178-T4	R317-T4	17S-T4
0.125	52.0		
0.156-0.188	44.0		
0.219-0.313	41.5		
0.375	40.0	46.0	48.0
0.406	40.0		
0.438	40.0	46.0	48.0
0.469	40.0		
0.500	40.0	46.0	48.●
0.531	40.0		
0.563	40.0		45.0
0.594	40.0		
0.625	40.0	43.5	45.0
0.688	40.0		45.0
0.750-1.000	39.0	41.0	42.5
1.063	39.0		41.0
1.125-1.500	37.5	39.5	41.0
1.563	37.0		
1.625	36.5		39.5
1.688-2.000	36.5		

LEAD

(Prices to jobbers, f.o.b. Buffalo, Cleveland, Pittsburgh) Sheets: Full rolls, 140 sq ft or more \$22.00 per cwt; add 50c cwt 10 sq ft to 140 sq ft. Pipe: Full coils \$22.00 per cwt. Traps and bends: List prices plus 60%.

ZINC Sheets, 24.50c, f.o.b. mill 36,000 lb and over. Ribbon zinc in coils, 23.00c, f.o.b. mill, 36.000 lb and over. Plates, not over 12-in., 23.50-24.50c; over 12-in., 23.50-24.50c.

"A" NICKEL

(Base prices f.o.b. mill)
Sheets, cold-rolled, 71.50c. Strip, cold-rolled
77.50c. Rods and shapes. 67.50c. Plates,
69.50c. Seamless tubes, 100.50c.

MONEL

(Base prices, f.c.b, mill) cold-rolled 57.00c. Strip cold-rolled Rods and shapes, 55.00c. Plates, Seamless tubes, 90.00c. Shot and 56.00c. Standard blocks, 50.00c. MAGNESIUM

Extruded Rounds, 12 in. long, 1.31 in. in diameter, less than 25 lb. 55.00-62.00c; 25 to 99 lb. 45.00-52.00c; 100 lb to 5000 lb. 41.00c.

TITANIUM

(Prices per lb, 10,000 lb and ever, f.o.b, mill) Sheets, \$15; sheared mill plate, \$12; strip, \$15; wire, \$10; forgings, \$0; hot-rolled and forged bars, \$6.

DAILY PRICE RECORD

						An-		
950	Copper	Lead	Zine	Tin	Aluminum	timony	Nickel	Silver
						32.00	50.50	90.16
an. 11	1 24.50	16.80	17.50	173.00	19.00			
an, 10	0 24.50	16.80	17.50	171.00	19.00	32.00	50.50	90.16
an, 9	24.50	16.80	17.50	163.00	19.00	32.00	50.50	90.16
an. 8		16.80	17.50	159.00	19.00	32.00	50.50	90.16
an. 5		16.80	17.50	156.00	19.00	32.00	50.50	Nom.
an. 4		16.80	17.50	157.00	19.00	32.00	50.50	80.00
an. 3		16.80	17.50	152.00	19.00	32.00	50.50	80.00
an, 2		16.80	17.50	150.00	19.00	32.00	50.50	80.00
ec. A		16.80	17.50	144.74	19.00	32.00	49.40	80.00
)ec. 29		16.80	17.50	150.00	19.00	32.00	50.50	80.00
)ec. 2		16.80	17.50	151.00	19.00	32.00	50.50	80.00
)ec. 2		16.80	17.50	150.00	. 19.00	32.00	50.50	80.00
)ec 2		16.80	17.50	150 00	19.00	32.00	50.50	80.00

TOTE: Copper; Electrolytic, del. Conn. Valley; Lead, common grade, del. St. Louis; Zinc, prime vestern, E. St. Louis; Tin, Straits, del. New York; Aluminum primary ingots, 99%, del.; Antimony, ulk, f.o.b. Laredo, Tex.; Nickel, electrolytic cathodes, 99, 9%, base sizes at refinery unpacked; silver, open market, New York. Prices, cents per pound; except silver, cents per ounce.

Plating Materials

Chromic Acid: 98.9% flake, f.o.b. Philadel-phia, carloads, 27.00c; 5 tons and over 27.50c; 1 to 5 tons, 28.00c; less than 1 ton 28.50c. Copper Anodes: Base 2000 to 5000 fb; f.o.b. shipping point, freight allowed; Flat un-trimmed 37.89e; oval 37.19e; cast 37.375c.

Copper Cyanide: 70-71% Cu, 100-lb drums, 1000 lb 61.9c, under 1000 lb 63.9c, f.o.b. Niagara Falls, N. Y.

Sodium Cyanide: 96-98%, %-oz ball, in 200 lb drums, 1 to 900 lb, 19.00c; 1000 to 19.900 lb, 18.00c, f.ob. Niegara Falls, N. Y. Packaged in 100 lb drums add %-cent.

Copper Carbonate: 54-56% metallic Cu; 50 lb bags, up to 200 lb, 29.25e; over 200 lb 28.25c, f.o.b. Cleveland.

Nickel Anodes: Rolled oval, carbonized, car-loads, 70.00c; 10.000 to 30.000 lb, 68.00c; 3000 to 10,000 lb, 71.00c, 500 to 3000 lb, 72.00c; 100 to 500 lb, 74.00c; under 100 lb, 77.00c; f.o.b. Cleveland

Nickel Chloride: 100-lb kegs, 35.00c; 400-lb bbl, 33.00c up to 10,000 lb, 32.50c; over 10,000 lb, f.o.b. Cleveland, freight allowed on barrels, or 4 or more kegs.

or 4 or more kegs.

Tin Anodes: Bar. 1000 lb and over, nom.; 500 to 999 lb, nom.; 200 to 499 lb, nom.; less than 200 lb, nom.; ball, 1000 lb and over, nom.; 500 to 999 lb, nom.; 200 to 499 lb, nom.; less than 200 lb, nom.; 200 to 499 lb, nom.; less than 200 lb, nom.; 10.5. Sewaren, N. J. Sodium Stannate: 25 lb cans only, less than 100 lb, to consumers nom.; 100 or 300 lb drums only, 100 to 500 lb, nom.; 600 to 1900 lb, nom.; 2000 to 9900 lb, nom.; 60.b, Sewaren, N. J. Freight not exceeding St. Louis rate allowed.

Zinc Cyanide: 100 lb drums. less than 10

rats allowed.

Zinc Cyanide: 100 lb drums, less than 10 drums 47.7c, 10 or more drums 45.7c, f.o.b.

Niagara-Falls, N. Y.

Stannous Sulphate: 100 lb kegs or 400 lb bbl, less than 2000 lb nom.; more than 2000 lb, nom., f.o.b. Carteret, N. J.

Stannous Chrolide (Anhydrous): In 400 lb bbl, nom.; 100 lb kegs nom., f.o.b. Carteret, N. J.

Scrap Metals

BRASS MILL ALLOWANCES

Prices in cents per pound for less than 15,000 lb, f.o.b. shipping point.

	Crean	roon	Clean
	Heavy	Ends '	Turnings
Copper	23.00	23.00	22.25
Yellow Brass	20.125	19.875	18.75
Commercial Bronze			
95%	21.875	21.625	21.125
90%	21.75	21.50	21.06
Red brass			
85%	21.50	21.25	20.75
80%	21.375	21.125	20.625
Munts metal	19.00	18.75	18_25
Nickel, silver, 10%	22.25	22.00	11.125
Phos. bronze, A	24.00	23.75	22.75

BRASS INGOT MAKERS' BUYING PRICES

Cents per pound.delivered eastern refineries, carload lots)
No. 1 copper 21.50*; No. 2 copper 20.00*; light copper 19.00*; composition red brass 22.00-22.50; radiators 17.25-17.50; heavy yelloy brass 17.00.

* Nominal.

REFINERS' BUYING PRICES (Cents per pound, delivered refinery, carload lots)

No. 1 copper 21.50*; No. 2 copper 20.00*; light copper 19.00*; refinery brass (60% copper) per dry copper content 19.50.

DEALERS' BUYING PRICES

(Cents per pound, New York, in ton lots)

(Cents per pound, New York, in ton lots)
Copper and brass: Heavy copper and wire, No.
1 20.00; No. 2 18.50; light copper 17.25; No.
1 composition red brass 17.00-17.50; No. 1
composition turnings 16.50-17.00; mixed brass
turnings 12.00-12.50; new brass clippings 17.5018.00; No. 1 brass rod turnings 16.00-16.50;
light brass 11.00; clean heavy yellow brass
14.50-15.00; new brass rod ends 16.50-17.00;
auto radiators 14.50-1500; cocks and faucets,
15.50-16.00; brass pipe 17.00-17.50.
Lead: Heavy 14.50-14.75; battery plates 8.75
9.00; linotype and stereotype 14.50-14.75;
electrotype 12.75-13.00; mixed babbitt 12.2512.50.

12.50.

Zinc: Old zinc 11.00-11.25; new die cast scrap 10.75-11.00; old die cast scrap 8.00-8.25.

Tin: No. 1 pewter 63.00-65.00; block tin pipe 90.00; No. 1 babbitt 58.00-60.00.

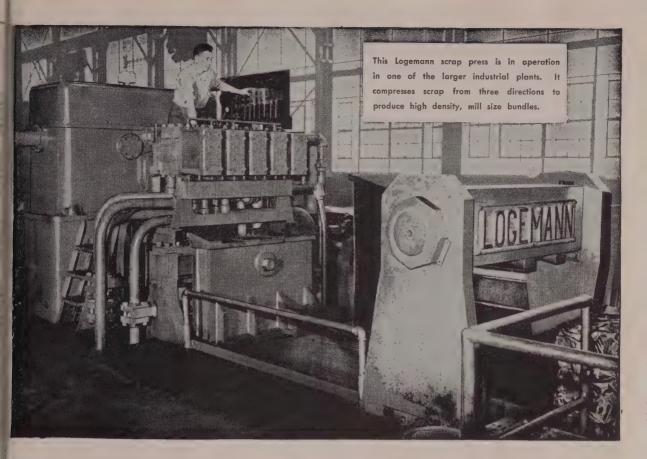
Aluminum: Clippings 28 19.00-19.50; old sheets 15.50-16.00; crankcase 15.50-16.00; borings and turnings 12.00-12.50.

IRON AND STEEL SCRAP

Consumers prices, except as otherwise noted, including brokers' commissions, as reported to STEEL, Jan. 11, 1951; gross tons

Changes shown in italics.

STEELMAKING SCRAP	PHILADELPHIA	NEW YORK	ST. LOUIS
COMPOSITE Jan. 11\$45.50	No. 1 Heavy Melt. Steel \$45.00 No. 2 Heavy Melt. Steel 43.00	(Brokers' buying prices f.o.b. shipping point)	No. 1 Heavy Melt. Steel \$46.00-47.00 No. 2 Heavy Melt. Steel 41.50-42.50
Jan. 4	No. 1 Busheling 43.00 No. 1 Bundles 45.00	No. 1 Heavy Melt. Steel \$39.00 No. 2 Heavy Melt. Steel 37.00	No. 1 Bundles 46.00-47.00 No. 2 Bundles 40.50-41.50 Machine Shop Turnings 33.00-34.00
Dec. 1950 45.50 Jan. 1950 26.93	No. 2 Bundles 42.00 Short Shovel Turnings 39.00 Machine Shop Turnings 37.00	No. 1 Busheling 38.00-39.00 No. 1 Bundles 39.00	Machine Shop Turnings 33.00-34.00f Short Shovel Turnings, 35.00-37.00
Jan. 1946 19.17	Machine Shop Turnings 37.00 Mixed Borings, Turnings 37.00 Low Phos. Punchings and	No. 2 Bundles 36.00 Mixed Borings, Turnings 31.00	Cast Iron Grades No. 1 Cupola Cast 58.00-60.00
Based on No. 1 heavy melting grade at Pittsburgh, Chicago	Plate, elec. fur. grade 51.00 Low Phos. Plate, 5 ft.	Machine Shop Turnings 31.00 Short Shovel Turnings. 33.00 Punchings & Plate Scrap 41.50	Charging Box Cast 51.00-53.00 Heavy Breakable Cost. 56.00-57.00 Brake Shoes 56.00-58.00
and eastern Pennsylvania.	& Under	Low Phos. Plate, 5 ft & under	Clean Auto Cast 65.00-67.00 Burnt Cast 53.00-54.00
	Heavy Turnings 45.00 No. 1 Chemical Borings 45.00 Knuckles and couplers. 56.00-58.00	Elec. Furnace Bundles. 41.50	Railroad Scrap
PITTSBURGH	Steel car wheels 56.00-58.00	Cast Iron Grades No. 1 Cupola Cast 47.00-48.00	R.R. Malleable 63.00-65.00 Rails, Rerolling 66.00-68.00 Rails, Random Lengths 59.00-61.00
No. 1 Heavy Melt \$46.50 No. 2 Heavy Melt 44.50	Cast Iron Grades No. 1 Cupola Cast 54.00-55.00	No. 1 Machinery 49.00-50.00 Charging Box Cast 44.00-45.00	Rails, 2 ft and under 65.00-67.00 Uncut Tires 57.00-58.00
No. 1 Busheling 48.50 No. 1 Bundles 48.50	No. 1 Machinery Cast. 58.00-60.00 No. 1 Yard Cast 53.00 Charging Box Cast 54.00-55.00	Heavy Breakable 44.00-45.00 Unstripped Motor Blocks 41.00-42.00	Angles, Splice Bars 66.00-68.00 Railroad Specialties 60.00-62.00
Heavy Turnings 47.00-48.00	Heavy Breakable Cast. 54.00-55.00	noomen.	SAN FRANCISCO
Machine Shop Turnings 38.50 Mixed Borings, Turnings 38.50 Short Shovel Turnings. 40.50	No. 1 Wheels 70.00° Malleable 70.00-72.00	BOSTON (F.o.b. shipping point)	No. 1 Heavy Melt. Steel \$80.00 No. 2 Heavy Melt. Steel 28.00 No. 1 Bundles 30.00
Cast Iron Borings 39.50-40.50 Low Phos. Steel 56.00-57.00	* Nominal	No. 1 Heavy Melt. Steel \$35.67 No. 2 Heavy Melt. Steel 33.67	No. 2 Bundles 28.90
	CINCINNATI No. 1 Heavy Melt, Steel \$46.00	No. 1 Bundles 35.67 No. 1 Busheling 35.67	No. 3 Bundles 25.00 Machine Shop Turnings 16.00 Low Phos. Electric 45.00
Cast Iron Grades No. 1 Cupola Cast 57.00-58.00	No. 2 Heavy Melt. Steel 44.00 No. 1 Busheling 46.00	Machine Shop Turnings 27.67 Short Shovel Turnings 29.67 Mixed Borings, Turnings 29.67	Cast Iron Grades
No. 1 Machinery Cast. 67.00-68.00 Charging Box Cast 55.00-56.00 Heavy Breakable Cast. 54.00-55.00	No. 1 Bundles 46.00 No. 1 Black Bundles 46.00	Mixed Borings, Turnings 29.67 Bar Crops and Plate 44.50-45.00 Punchings & Plate Scrap 44.50-45.00	No. 1 Cupola Cast 43.00-45.00 Railroad Scrap
	Machine Shop Turnings 33.00 Short Shovel Turnings. 34.00 Mixed Borings, Turnings 33.00	Chemical Borings 33.00-34.00	No. 1 R.R. Heavy Melt. 30.00 Rails, Random Lengths 30.00
Railroad Sorap No. 1 R.R. Heavy Melt. 46.50	Cast Iron Borings 34.00	Cast Iron Grades	SEATTLE
Rails, Random Lengths 64.00-65.00 Rails, 2 ft and under, 68.00-69.00	Cast Iron Grades No. 1 Cupola Cast 70.00	No. 1 Cupola Cast 46.00-47.00 Mixed Cast	No. 1 Heavy Melt. Steel \$28.00
Rails, 18 in, and under 69.00-70.00 Railroad Specialties 64.00-65.00	Charging Box Cast 60.00 Stove Plate 55.00	Stove Plate 42.00-43.00	Nos. 1 & 2 Bundles 25.50-26.00
	Heavy Breakable Cast . 56.00 Unstripped Motor Blocks 42.00 Brake Shoes 37.00	CHICAGO	Machine Shop Turnings 20.00
CLEVELAND	Clean Auto Cast 70.00 Drop Broken Cast 72.50	No. 1 Heavy Melt. Steel \$45.00 No. 2 Heavy Melt. Steel 43.00	Mixed Borings, Turnings Punchings & Plate Scrap Cut Structurals 40.00-44.00
(Delivered Censuming Plant)	Low Phos., 18 in. and under 62.00	No. 1 Bundles 45.00 No. 2 Bundles 42.00	Cast Iron Grades
No. 1 Heavy Melt. Steel\$45.50-48.00† No. 2 Heavy Melt. Steel 43.50-44.00†	Railroad Scrap	Machine Shop Turnings 35.00-36.00 Mixed Borings, Turnings 35.00-36.00 Short Shovel Turnings. 36.00-37.00	No. 1 Cupola Cast 42.00-44.00 Heavy Breakable Cast. 38.00-40.00
No. 1 Busheling	No. 1 R.R. Heavy Melt. 46.00 R.R. Malleable 64.00 Rails, Rerolling 65.00	Cast Iron Borings 36.00-37.00 Low Phos 52.00-54.00	Stove Plate 36.00-38.00 Unstripped Motor Blocks 33.00-85.00 Malleable 38.00-85.00
Machine Shop Turnings 37.50-38.00 Mixed Borings, Turnings 39.00-40.00 Short Shovel Turnings. 39.00-40.00	Rails, Random Lengths 65.00 Rails, 18 in, and under 72.50	Elec. Furnace Bundles. 46.00-48.00 Heavy Turnings 41.00-42.00 Cut Structurals 50.00-51.00	Brake Shoes 35.00 Clean Auto Cast 40.00
Cast Iron Borings 39.50-40.00 Low Phos 48.90-48.50	DETROIT		No. 1 Wheels 40.00 Railroad Scrap
	(Brokers' buying prices, f.o.b. shipping point)	Cast Iron Grades No. 1 Cupola Cast 61.00-63.00	No. 1 R.R. Heavy Melt. 29.00 Railroad Malleable 35.00
No. 1 Cupola 65.00-66.00	No. 2 Heavy Melt. Steel \$38.25-39.00	Clean Auto Cast 64.00-65.00 No. 1 Wheels 60.00-62.00	Rails, Random Lengths 29.00-80.00 Angles and Splice Bars 29.00-30.00
Charging Box Cast 53.00-54.00 Stove Plate 55.00-56.00 Heavy Breakable Cast 55.00-56.00	No. 1 Bundles 40.25-45.00* No. 2 Bundles 37.25-37.50 No. 1 Busheling 40.25-45.00	Stove Plate 49,00-50.00	LOS ANGELES
Brake Shoes 50.00-51.00	Machine Shop Turnings 32.25-33.00 Forge Flashings 40.25-45.00 Short Shovel Turnings. 34.25-35.00	Railroad Scrap No. 1 R.R. Heavy Melt. 46.00-47.00*	(Delivered prices) No. 1 Heavy Melt. Steel \$30.00
Clean Auto Cast 65.00-68.00 Burnt Cast 46.00-47.00	Short Shovel Turnings. 34.25-35.00 Cast Iron Borings 34.00-35.00 Punchings & Plate Scrap 42.75-46.00	Malleable	No. 2 Heavy Melt, Steel 28.00 No. 1 Bundles 30.00
Railroad Scrap No. 1 R.R. Heavy Melt. 46.60-46.50	Cast Iron Grades	Rails, 2 ft. and under. 67.00-68.00 Rails, 18 in. and under 68.00-69.00 Railroad Specialties 58.00-59.00 Angles, Splice Bars 59.00-60.00	No. 2 Bundles 28.00 No. 3 Bundles 25.00 Machine Shop Turnings 16.00
R.R. Maileable 72.00-73.00 Rails, 3 ft and under 70.00-71.00	No. 1 Cupola Cast 59.00-60.00 Heavy Breakable Cast. 48.00-50.00	Railroad Specialties 58.00-59.00 Angles, Splice Bars 59.00-60.00	Machine Shop Turnings 16.00 Punchings & Plate Scrap 40.00
Rails, 18 in. and under 71.00-72.00 Rails, Random Lengths 64.00-65.00	Clean Auto Cast 62.00-64.00	* Brokers' buying price.	Cast Iron Grades No. 1 Cupola Cast 45.00-48.00
Cast Steel	* Top of Jan. 8 price range (\$50) represented a maximum delivered price.	BIRMINGHAM	Railroad Scrap No. 1 R.R. Heavy Melt, nominal
Angles, Splice Bars 65.00-66.00	BUFFALO	No. 1 Heavy Melt. Steel \$41.42 No. 2 Heavy Melt. Steel 41.50	Rails, Rerolling 48.00
† Plus applicable springboards	No. 1 Heavy Melt. Steel \$44.50-45.25	No. 1 Busheling 43.50 No. 2 Bundles 40.50	HAMILTON, ONT. (Delivered prices)
VALLEY	No. 2 Heavy Melt. Steel 42.50-43.25 No. 1 Busheling 42.50-43.25 No. 1 Bundles 43.50-44.25	Machine Shop Turnings35.50Mixed Borings, Turnings35.50Short Shovel Turnings37.50	
No. 1 Heavy Melt. Steel\$46.00-46.50†	No. 2 Bundles 41.50-42.25 Machine Shop Turnings 36.50-37.25	Cast Iron Borings 28.00 Bar Crops and Plate 46.00-47.00	Mechanical Bundles 28.00 Mixed Steel Scrap 28.00
No. 2 Heavy Melt. Steel 44.00-44.50† No. 1 Bundles 46.00-46.50†	Mixed Borings, Turnings 36.50-37.25 Cast Iron Borings 36.50-37.25 Short Shovelings 38.50-39.25	Cut Structurals 46.00-47.00 Cast Iron Grades	Mixed Borings, Turnings 23.00 Rails, Remelting 30.00 Rails, Rerolling 33.00
Facty. Prod. Bundles. 46.00-46.507 No. 2 Bundles 40.50-42.50 Machine Shop Turnings 38.00-38.50	Low Phos 48.25-49.00	No. 1 Cupola Cast 55.00-56.00	Bushelings new factory,
Cast Iron Borings 40.00-40.50	Cast Iron Grades No. 1 Cupola 54.00-55.00	No. 1 Wheels 50.50-51.00 nominal	prep'd 28.00 Bushelings new factory,
Low Phos 48.50-49.00 † Plus applicable springboards	No. 1 Machinery 59.00-60.00 Malleable nominal	Railroad Scrap No. 1 R.R. Heavy Melt. 43.50	unprep'd
Railroad Scrap	Railroad Scrap Rails, 2 ft and under 69.00-61.00	D D Mallochle nominal	Cast Iron Grades. No. 1 Machinery Cast 50.00
No. 1 R.R. Heavy Melt. 46.00-46.50	Rails, random size 55.00-56.00 Railroad Specialties 55.00-56.00	Rails, 2 ft and under. 66.00-61.00 Angles and Splice Bars. 59.00-60.00	* F.o.b. shipping point,



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Both two-ram and three-ram models are available with automatic controls or for manual manipulation.

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LOGEMANN BROTHERS COMPANY 3164 W. Burleigh Street Milwaukee 10, Wisconsin

133 January 15, 1951

Steel Bars . . .

Bar Prices, Page 125

New York-One leading seller of hot carbon bars has doubled its minimum quotas on DO-rated orders. As a result, he is in position to take such rated business as early as April and just before closing books for March was able to add a little extra tonnage for that month also. Previously this producer was sold up through most of June.

There is an increasing disposition among sellers to go beyond minimum quotas set up by Washington, as deliveries otherwise are becoming too extended to be of much help in various instances. Meanwhile, producers are now fully booked up for the current quarter as the lead time has now expired and are not booking beyond on non-rated tonnage. There are a few exceptions where longer than 45 days is required to process the tonnage, but the overall quantity is small. Actually producers are moving as slowly as possible in committing themselves ahead for the reason it is generally believed there will have to be a reshuffling of ratings to something along the lines of CMP in World War II if defense work is to be handled efficiently. Some reports from Washington indicate it will be difficult to make any broad revision in the rating system before third quarter, but many producers still think it will come before then.

Philadelphia—Highly divergent re-

quirements are maintaining hot carbon bar production at peak. have closed their books for March on non-rated as well as rated business and are into the second quarter on the latter. By stepping up its acceptances of DO-rated orders beyond the minimum quotas specified by the government, one leading prowhich had been sold through practically all of the second quarter on rated tonnage is now in position to accept DO-orders for de-

livery as early as April.

Pittsburgh — Substantial increase in hot-rolled bar demand for essential end uses is noted. This trend has prompted NPA to lift the maximum tonnage set aside by the mills for hot-rolled bars and small shapes from 5 to 10 per cent beginning with March shipments. Additional upward adjustments in maximum percentage set-aside for other products are expected, particularly for alloys and sheets. In addition to increased needs for military end uses, there is good prospect mill shipments will be aug-

mented for indirect war programs. Cleveland-Bar mill set-aside tonnage for DO orders will be increased to 10 per cent, it was reported in the market last week. It had been only 5 per cent since early in December. This means the squeeze on regular commercial account supplies is tightening noticeably with more defense business coming to the fore. More manufacturers are getting into defense work and this is bringing

out a larger volume of rated orders. Chicago—Some barmakers schedule their mills on a two-month rolling cycle. Thus, for the January-February period they will be producing against the yearend carryover cleanup. The picture for March-April can-not be fully appraised at this time. It is understood NPA is about to increase from 5 to 10 per cent the proportion of DO orders which barmakers must provide.

Seattle-Inquiry has tapered but rolling mills continue at peak capacity. Northwest Steel Rolling Mills, Inc., Seattle, resumed rolling Jan. 8 after repairs. Small jobs are numerous. Merchant bars are moving freely, mostly into inventory. Increased shipyard operations are expected.

Sheets, Strip . . .

Sheet and Strip Prices, Page 125 & 126

New York-DO-rated orders in sheets appear to be mostly for electronic equipment, although there are some tonnages for the Atomic Energy Commission. Although various mils are not holding too rigidly to the minimum tonnage they are compelled to accept on DO-rated orders, deliveries on such ratings are becoming more extended. In some grades of sheets sellers are booked up throughout most of second quar-ter and there is a general feeling some change in the rating system

will be necessary.

Philadelphia-Less pressure is noted for enameling stock and this is regarded as significant of an easing in production of household appliances. However, specifications are still sub-stantial. Hot and cold carbon sheets also reflect this situation to some degree, but demand is still far in excess of supply, and with rated orders steadily expanding there appears to be no letup in the overall picture whatsoever. Galvanized sheet requirements are taxing all facilities and specialties, such as electrical sheets and stainless, are in heavy demand for emergency work.

Cleveland—The heavily booked up position of sheetmakers precludes

any material easing in supply conditions over coming weeks even though curtailments in civilian goods production should result in some easing of demand pressure on the mills. Most sellers are overbooked on rated tonnage as measured by the minimum set-aside they are compelled to provide for DO-rated requirements.
And expectations are that the setaside tonnage will be increased in step with enlarging demands for military and related account. Consequently, there is little chance any additional tonnage will become avail-

able for the general market soon.

Producers' rolling schedules are
booked through April on current rated tonnage including set asides for the freight car program, warehouses and nonintegrated interests. Cincinnati—The steadily rising tide

of rated tonnage in sheets will be felt when March allotments for civilian needs are announced. District mills are working out schedules on

a month-by-moth basis.

St. Louis-Reiceipt of DO rated cold-rolled sheet orders in this district is picking up. Mills are booked to around May 1 on their 10 per cent of capacity set-aside. A little gal-vanized sheet tonnage is open in April. First indications of non-rated sheet demand easing in the wake of civilian goods curtailments are noted.

Pittsburgh-Sellers anticipate NPA action soon raising maximums on DO rated order acceptance from 10 to 15 per cent on hot and cold-rolled sheets. The 5 per cent maximum applying to enameling and galvanized grades may be left unchanged but silicon sheets likely will be increased to 10 per cent reflecting unusually heavy motor requirements involved in large order backlogs for machine tools, steel mill facilities, etc.

Plates . . .

Plate Prices, Page 125

New York-Plate producers generally have filled their schedules for March as the 45 day lead time has now been reached. Some mills will have less nonrated tonnage to offer in March than in February. This is ascribed to a steady increase in DOrated tonnage, with most mills finding it necessary to accept more than the 15 per cent minimum quota beyond which they are not compelled to

Nothing yet has been heard with respect to rated requirements of railroad car builders for second quar-ter. However, it is generally be-lieved there will be no stepping up in steel allocations for that period. Meanwhile, car builders have not yet been able to reach the goal of 10,-000 cars per month and probably

won't this quarter.

Philadelphia—Pressure for plates is unabated, particularly for cars, oil and gas lines and tanks, with emphasis on the light gages. Jobbers are after far more than the mills can supply. Machinery and equipment builders are seeking increasing

Ship requirements are still lagging, but with both merchant marine and navy programs shaping up rapidly, ship needs will be an important factor before the year is over. The maritime administration will open bids Jan. 31 on fifty 12,500 deadweight ton merchant ships, 525 feet long, and having a speed of at least 20 knots.

Last week the Armed Services Committee of the House of Representatives unanimously approved authorization for the construction of 173 naval vessels, having a combined displacement tonnage of 500,000 tons, and the conversion of 1,000,000 tons of existing shipping. Proposed new work will include a 60,000-ton aircraft carrier.

Proposed locomotive building and maintenance program, if any, when set up for voluntary allocations, will require at least 70,000 tons of mis-

cellaneous steel per month.

Pittsburgh-Fabricators anticipate a continued diminishing tonnage of plates available throughout 1951 for commercial account and consequently are restricting bookings to contracts of "rated" nature wherever possible. Shortage of plates is more critical than standard shapes, although some relief may be in the offing later this year through conversion of some strip mill capacity to production of plates. Some fabricators say they soon will be forced to furlough employees due to the general steel shortage.

Chicago-It is estimated that plate tonnage to be available for civilian use in February will be about 50 per cent of the average for the first nine months of last year. Each month sees DO and support programs bite

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HOT BEDS-COOLING BEDS-TRANSFERS

BILLET EJECTORS—PINCH ROLL STANDS

SLITTERS-SPECIAL SHEARS AND GAUGES

TILTING TABLES-TRAVELING AND

CONTINUOUS PICKLING LINES— ROLLER LEVELLERS

FURNACE CHARGING EQUIPMENT
-FURNACE PUSHERS

STRIP STEEL COILERS AND REELS
--SCRAP BALLERS

RAILROAD SPIKE FORMING
MACHINES-ROLL LATHES

SHEET GALVANIZING LINES WIRE PATENTING FRAMES

STRETCHER LEVELLERS-ANGLE AND SHAPE STRAIGHTENERS

ROLLING MILL TABLES-GEAR AND INDIVIDUAL MOTOR TYPES

MACHINERY BUILT TO CUSTOMER'S DESIGN AND DETAIL DRAWINGS



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deeper into the free supply. Report has it the merchant ship program will call for heavier and longer plates than were used in World War II.

than were used in World War II. St. Louis—For the first time since early postwar, Granite City Steel Co. is back in regular plate production, currently delivering 2300 tons monthly to the freight car program. That figure is due to rise to 3600 tons soon under DO orders.

Birmingham—Plate supply falls far short of demand. Mills are unable to divert additional ingots to plate production. Demand is out of proportion to production capacity.

Seattle—Plate shops report numerous small jobs but with steel on allocation and supplies tight, operations are handicapped. Contracts have been placed for approximately 500 tons involved for tank projects at Hanford works.

Structural Shapes . . .

Structural Shape Prices, Page 125

New York—While new structural orders have been light of late, much work is being figured, principally of public character. Fabricators have heavy order backlogs. Most large and medium sized shops are now unable to promise much before late in the year or early in 1952. Were shapes and other plain materials in normal supply, they would feel justified in making better promises, but prospects for obtaining more than the restricted volume they are now receiving are dim.

Philadelphia—Structural orders are lagging compared with several weeks ago, ascribed in part to seasonal conditions and to the extended delivery promises of fabricating shops. Virtually all are booked up months ahead on the basis of present restricted receipts of plain material. Some are booked ahead more than a year

booked ahead more than a year.

Pittsburgh—Large structural steel requirements for steel mill expansion programs are expected to be satisfied as needed through NPA assistance. Some fabricators are operating well below capacity due to the general steel shortage, a situation which likely will be further accentuated over coming months in direct ratio to extent these interests are successful in booking contracts of essential classification. Dinardo Inc., Pittsburgh, is low on the general contract for a state highway project at Banksville Circle in Pittsburgh, and low on general cotract for a state highway project at Banksville Circle in Pittsburgh, involving 1480 tons of structural shapes and 863 tons of reinforcing bars. Same company is low on state highway bridges, Section 3B and 4B at Carnegie, Pa., requiring 3186 tons of shapes and 951 tons of reinforcing bars.

Birmingham—Demand for structurals is consistent though not spectacular. Fabricators are busy but most tonnage is projected into the future.

Seattle—Bethlehem Pacific Coast steel Corp., second low at \$4,432,053, was awarded 16,400 tons of transmission towers and accessories by Bonneville Power Administration, materials for the 230-kv Big Eddy-Troutdale line.

Tin Plate . . .

Tin Plate Prices, Page 126

Pittsburgh—NPA regulation governing end-use of tin plate is expected momentarily. It likely will follow the pattern in effect throughout the last war. Official action by NPA had been scheduled for Jan. 10, but was delayed a few days.

Sharp expansion in the industry's electrolytic capacity, compared to only one line in operation at start of last emergency, should take some of the pressure off too drastic controls on tin plate end-use at this time. Three new electrolytic lines are expected to be ready for operation this year. Still others are scheduled for 1952.

While deadline on lead time for February tin plate production was Dec. 15 and is Jan. 15 for issuance of March specifications, mills are not likely to experience much difficulty revising coating weight specifications where necessary in compliance with anticipated NPA regulations.

Semifinished Steel . . .

Semifinished Prices, Page 125

Pittsburgh—Extremely tight supply in semifinished steel products is expected to prevail throughout 1951. Increasing tonnage demand from forging companies and other customers for direct military programs is developing.

Sheet bar supply is inadequate and shows no signs of improving. This situation presents a major obstacle to full utilization of marginal hand sheet mills. One hand mill operator is obtaining about 4000 tons of sheet bars monthly from France, representing but a small portion of total requirements.

Domestic carbon sheet bars currently are offered on limited tonnage basis within the wide range of \$90 to \$135 per ton.

Wire . . .

Wire Prices, Page 127

Cleveland—Wiremakers see little prospect of any material improvement in supply conditions over coming months. Increasing demand for defense requirements is reflected in rising volume of rated orders on books. In turn tonnage earmarked for so-called nonessential consumption is shrinking.

Birmingham—The shortage in wire products is being felt acutely in rural areas. Fencing, nails, sheets, galvanized and roofing, angle bars, rods and various other specifications are on the scarcity list.

Fluorspar . . .

Fluorspar Prices, Page 128

New York — Imported fluorspar prices have undergone further advance, the metallurgical grade now holding around \$34-\$35 per net ton, duty paid. This follows abrogation of the Mexican treaty Jan. 1, which originally had reduced the duty on fluorspar from \$8.40 to \$6.30. With the Mexican treaty no longer in ef-

fect the old duty of \$8.40 has gone back into force. Late last year and prior to the abrogation of the treaty the imported market had advanced to \$32-\$33 under increasing pressure of demand.

Pig Iron . . .

Pig Iron Prices, Page 124

New York—As deliveries on foreign pig iron become more extended, some importers being booked up throughout first half, there is an increasing disposition to quote prices on the basis of the market ruling at time of shipment. This is due to uncertainties with regard to future production costs on the other side, foreign exchange and ocean freight rates. This has served to place a damper on buying, although some tonnage is still available at firm prices even on the more extended deliveries. Nearby tonnage is usually available in comparatively small lots. Perhaps Chilean iron is in best supply at the moment. This iron has only recently been placed on the market, at prices ranging around \$67, duty paid.

Philadelphia—Some badly needed foreign iron arrived here last week comprising about 70,000 tons from the Netherlands. Another cargo of around 8000 to 9000 tons of Brazilian iron is expected late this month. Some Chilean iron is enroute, and a fairly steady flow from various sources is expected over remainder of the first half. Sellers of Chilean iron the latest to enter the market, are booked through first quarter. Meanwhile, European sellers are having increasing difficulty obtaining export licenses from their own governments.

Pittsburgh—Most jobbing foundries have raised casting prices about 10 per cent to offset increases of \$2 to \$8 per ton in coke, pig iron, refractories and cast scrap, in addition to an advance of 7½ cents an hour in wage costs since September.

Order volume among jobbing shops is well sustained, with these interests operating one shift 5 days per week. Substantial reduction in orders among foundries serving consumer durable goods manufacturers is noted. Foundries producing heavy machinery castings and specialties in connection with steel mill, aluminum, and other expansion programs expect to be active throughout 1951. Military orders for armor castings for tanks, etc., have improved markedly with suppliers booked into 1952.

Union Steel Castings Division, Blaw-Knox Co. is constructing a building addition that will enclose more heat treating and shipping facilities, which should increase capacity about 400 per cent for cast armor castings.

Producers are scheduled to meet in Washington this week to help prepare NPA regulations covering the distribution of pig iron. The plan is expected to minimize cross hauling and likely will be based on individual producers' base period distribution pattern adjusted to meet increased requirements of foundries serving the railroad freight car and other classified programs.

Buffalo-Talk is heard here of in-

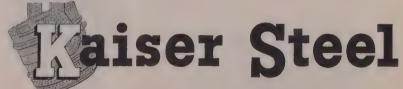


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- ✓ Complete control of quality, from the mining of coal and iron ore to the production of finished steel.
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January 15, 1951 137



SIMONDS ABRASIVE COMPANY, PHILADELPHIA 37, PA. DISTRIBUTORS IN PRINCIPAL CITIES

Division of Simonds Saw and Steel Co., Fitchburg, Mass. Other Simonds Companies: Simonds Steel Mills, Lockport, N. Y., Simonds Canada Saw Co., Ltd., Montreal, Que. and Simonds Canada Abrasive Co., Ltd., Arvida, Que.

creased use of foreign iron as current domestic output fails to meet requirements.

Cleveland - Pig iron supply continues to tighten but no foundry shutdowns for lack of iron are reported yet. Merchant sellers are allocating tonnage as equitably as possible and so far have been able to provide all of their customers with enough tonnage to keep them going. Meanwhile, some foundries have been showing increased interest in foreign iron, However, prospects for relief on this score are limited, word in the trade here being that little additional import tonnage is available until mid-year. One lot of 100 tons of specialgrade foreign iron, containing some vanadium, was bought in this district recently at around \$75 per ton delivered.

Chicago—Pig iron market pattern is holding unchanged with suppliers allocating tonnage to foundries under a rigid program. Gray iron shops are estimated to be operating at about 75 per cent of capacity despite the fact orders would justify full capacity. The operating rate is of necessity geared to iron and coke supply Foreign iron continues to be offered here at prices ranging between \$90 and \$100 laid down, but delivery does not prove to be as good as promised.

St. Louis-Iron makers are watching closely the coming scrap controls for effect on pig iron demand. Blast furnaces are under steadily mounting pressure and would welcome some relief from the scrap mar-However, it is believed locally that a \$5 to \$10 scrap rollback would be required to ease pig demand no-ticeably. With foundry iron, for example, at \$55 and cast scrap at \$58, it would take more than a \$3 drop in the latter to offset pig iron's advantage of content control and guaranteed analysis.

Los Angeles-Foundries, working

45 hours weekly, are having trouble whittling down 6-8 week backlogs.

Seattle—Foundry operations are well above normal partially due to scattered defense contracts. Foreign pig iron is arriving frequently.

Metallurgical Coke . . .

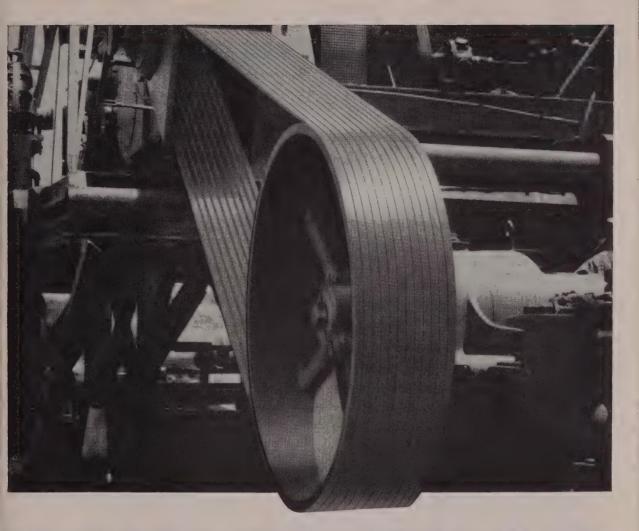
Metallurgical Coke Prices, Page 128

Detroit—Ford Motor Co. will expand metallurgical coke capacity from the present annual figure of 1,-225,000 net tons to 1,430,000 tons. The program, which involves building 37 coke ovens at the Rouge Plant to bring the number there to 220, will

start in the spring.

Coke from the facility will be used to support operation of the three Ford blast furnaces and to supply Ford's foundry facilities. These are being expanded by the production foundry to serve the new Cleveland engine plant, and by two increases in the Detroit area. A new specialty foundry to produce crankshafts and valves is being constructed at the Rouge and the Dearborn iron foundry, previously called the production foundry, is being expanded.

In addition to the new coke ovens, a new coke screening plant will be constructed. In the coal chemicals plant six light oil scrubbers and two ammonia stills will be replaced with modern equipment.



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Scrap . . .

Scrap Prices, Page 132

New York—Brokers' buying prices continue unchanged pending outcome of discussions in Washington. Most grades will be subject to a rollback. Indications are that most pronounced action will be in cast grades and specialties and for this reason some consumers of these grades are not pressing for as much tonnage as they might otherwise. Others are ordering all they can handle on the assumption that these grades, as well as steel scrap, are going to be scarce for a considerable time to come.

Philadelphia—Pending outcome of price discussions in Washington, scrap prices generally are unchanged in this district. Extent of the expected rollback has not been officially revealed. Indications are that a reasonable grace period will be allowed for the winding up of current contracts once a final decision as to prices has been made. Some interests believe ceilings may not become effective until Mar. 1. Consumers of steel scrap are pressing for all the tonnage they can obtain, not waiting for any cuts that may be announced later. As there is a possibility of much more substantial rollback in some specialties and cast grades, there is less pressure from consumers of these materials, especially where they have at least fair inventories on hand.

Pittsburgh—Leading mills delay re-entering the market for large tonnages of dealer scrap pending action on price controls. There is still some unshipped tonnage for which commitments were made when the mills established multiple basing point prices. Railroads also owe tonnage on previous sales and have made no effort to advertise additional lists since requested by ESA to notify the agency, at least 7 days prior to date future lists will be offered, of the grades and prices expected.

Conjecture is No. 1 heavy melting steel price here will be rolled back \$1.50, possibly more. Weakness already is reported in railroad specialties but there are no sales substantiating lower quotations. In addition to railroad specialties, current cast scrap prices are held to be too high. Substantial reduction in quotations for these grades is anticipated.

Another aspect of the cast market is the possibility one price will be established at all major centers with normal differentials for various grades, in contrast to the different prices at various basing points anticipated in the price control regulation for open-hearth scrap.

Buffalo—New business in scrap is virtually at a standstill as the trade awaits government control action on prices and supplies. With one of the leading mill consumers showing a decided shrinkage in reserve stocks, interest in supplies became more apparent.

Detroit—Some foundry interests, who have sufficient scrap supplies to stay out of the market in the hope that price control is imminent, are doing so to give the market some semblance of weakness. However, bulk of cast buying is at the previ-

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This fan will stand up under fumes that would quickly destroy an ordinary metal fan. Couple this

with high fan efficiencies, and you have a real money-saver fan for your fume removal job. It's just one of many special fans "Buffalo" builds to satisfy the most exacting demands of industry. Let us know your air problem—there's a "Buffalo" fan to handle it!



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AIR TEMPERING HEATING INDUCED DRAFT EXHAUSTING PRESSURE BLOWING

ous levels and dealers are not cutting prices to attract business. Openhearth grades are still in a split market, although the percentage moving at formula levels is rising.

Cleveland-Consensus in the scrap trade here last week was that the pending rollback in prices would be a minimum of \$1.50 a ton. Prospect of lower prices has stimulated the movement of material to an exceedingly fast pace all along the line. Despite unusually heavy shipments, receipts by mills are not much in excess of current needs. Comparatively little stocking is being done by consumers. Published prices are unchanged, although some material is moving at levels above the formula.

Cincinnati-Prices on iron and steel scrap remain unchanged as dealers await further word from conferences on controls. The convention drew principals in the market, a factor tending to restrict trading. Most dealers are releasing accumulations, whereas rail lists lag.

Chicago-Lessened buying by consumers while ESA and scrap industry leaders work out details of price scheduling and allocations continues to exert a softening effect on prices here. Foundries in particular are purchasing only for short term needs until the situation is clarified. Fear of suppliers is that foundries may be working "too close to their belts" and may turn up short on material a few weeks hence. Activity in railroad grades has been at a standstill since Dec. 26 when ESA asked the carriers to halt sales until seven days notice

of price to be charged is given. Flow of scrap on current orders still is retarded by snow and cold weather in the midwestern area which have hampered preparation and loading.

St. Louis Scrap consumers are holding off buying pending an anticipated price rollback. Dealers are using the lull to build grounds stocks, but bad weather and poor shipments are hindering it. Opinion here is the 60-day inventory allowed dealers will be followed by a 45-day limit on consumer ground stocks. Since local mills and foundries currently have considerably under 45-days, dealers expect a moderate buying spurt after ceilings, expected to be moderate, are

San Francisco-Steelmaking grades of scrap are steady at the established prices. Supplies are not abundant, but are coming in at a fairly steady

Seattle-Inflow of cast iron scrap to foundries is increasing with sellers evidently seeking to establish firm price levels before government ceiling prices are fixed. The market appears very firm.

Rails, Cars . . .

Track Material Prices, Page 127

New York-Domestic freight car orders in December amounted 3362 units bringing the total for the year to 156,481, according to a joint announcement by American Railway Car Institute and Association of American Railroads. This is the largest number of new cars placed in any year since 1922. Deliveries last month involved 5700 cars against 5791 in November and 3330 in December, 1949. The desired goal of 10,000 cars monthly may not be reached before April or May. Backlogs on orders Jan. 1 involved 124,-489 cars against 126,870 on Dec. 1 and 12,036 a year ago.

Warehouse . . .

Warehouse Prices, Page 129

Pittsburgh-Unbalanced and depleted inventories are expected to force a noticeable decline in warehouse shipments throughout first half from levels prevailing in third and fourth quarters last year. Mill de-liveries to warehouse accounts were fairly well sustained in the closing months of 1950, but distributors are concerned over the supply outlook in view of the increasing volume of preferred tonnage mills must set aside prior to shipment for warehouse account. Distributors' yearend inven-tories of major steel products were 40 to 50 per cent under last year.

Cleveland—Warehouse stocks con-

tinue to shrink under impact of strong demand and limited receipts from the mills. Inventory position of the distributors has not been materially improved by NPA order M-6 which is designed to assure continuance of mill shipments to supply stores. The simple fact is tonnage taking precedence over warehouse needs is so heavy the mills cannot materially enlarge their shipments to the distributors who as yet are entertaining only a limited amount of DO orders.

Cincinnati-Deliveries of steel from warehouses are slowing down, due to deteriorating inventories. Moreover, unless there is relief through government sources, the supply outlook for the entire quarter is none too bright.

Chicago-Although warehouses report receipts aggregate close to allocations set up by the mills under M-6 the tonnage is far from sufficient to satisfy heavy demand from con-sumers. Sales, therefore, must be handled on a quota system. DO orders are not increasing at a rapid rate largely because subcontracts have not yet been fanned out by prime contractors.

Birmingham — Warehouse stocks are barely holding their own. Which means stocks are far from adequate.

San Francisco-Shortages in some warehouse steel items are so severe DO ratings do not mean much. Worse off are unrated orders.

STRUCTURAL SHAPES . . .

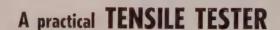
STRUCTURAL STEEL PLACED

16,400 tons, transmission towers and accessories for Bonneville Power Administration, 230-kv Big Eddy-Troutdale power line, to Bethlehem Pacific Coast Steel Co., Seattle, second low \$4,432,053.

2000 tons, diesel engine shop, Argentine, Kans., for Santa Fe System, to Kansas City Structural Steel Co., Kansas City,

Rans. 1737 tons, bridge, North Omaha, Nebr., for North Omaha Bridge Commission, to Mid-land Structural Steel Co., Hammond, Ind., for fabrication by Allied Structural Steel Companies, industrial contracting company, Minneapolis.

1000 tons, Erie Railroad bridge, Jersey City, N. J., to American Bridge Co., Pittsburgh. 600 tons, state bridge work, Lehigh county,





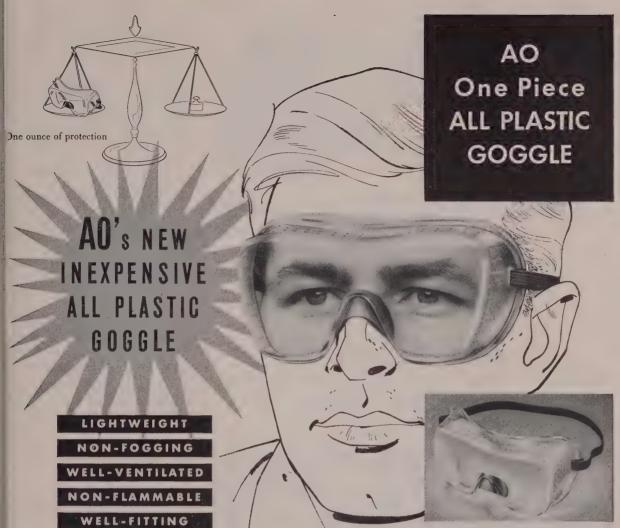
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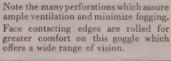


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It affords easy accessibility to a single bag or a container full. Can be used as a bin. Speeds production and inventory. Keeps storeroom neat. Tiers to any desired height.

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Pennsylvania, to Bethlehem Steel Co.

477 tons, factory building, Massey-Harris Co., Racine, Wis., to Bethlehem Steel Co. 450 tons, plant addition, Heintz Mfg. Co., Philadelphia, to Bethlehem Fabricators Inc.

253 tons, bridge, F-06-(24), Waukesha county, Wisconsin, to Milwaukee Bridge Co., Mil-

waukee.

220 tons, store, Scranton, Pa., to Anthracite Bridge Co., that city. 138 tons, bridge, section 141-B, Iroquois county,

Illinois, to Bethlehem Steel Co.; Triangle Construction Co., Kankakee, Ill., contractor, 130 tons, Alaska bridges, to Pacific Car & Foundry Co., Seattle; J. J. Badraun, Seattle,

general contractor. 110 tons, bridge, S-1544 (1), Marinette county, Wisconsin, to Milwaukee Bridge Co., Mil-

STRUCTURAL STEEL PENDING

6000 tons, veterans hospital, around 23rd street and East river, Manhattan, New York; bids asked.

3186 tons, state highway bridges, sections 3B and 4B, Carnegie, Pa.; Dinardo Inc., Pittsburgh, general contractor, low.

2000 tons, central contractor, now.
2000 tons, central heating and power plant,
Fort Richardson, Alaska; bids to U. S.
Engineer, Seattle, Jan. 10.
1480 tons, state highway project, Banksville
Circle, Pittsburgh; Dinardo Inc., Pittsburgh,

general contractor, low.
800 tons, reconstruction of the Wills avenue
bridge, Manhattan, New York; bids asked
by Municipal Department of Public Works. 700 tons, bridge, Reading Co., Reading, Pa.

bids closed Jan. 15.
419 tons, bridge, section 42SF-9, Cook county. Illinois; bids Jan. 19.

350 tons, warehouse Associated Grocers, Pittaburgh; bids closed Jan. 12.

300 tons, bridge, section 146F, St. Clair, county, Illinois; bids Jan. 19. 250 tons, administration building, Delaware River Toll Commission, Morrisville, Pa.;

new bids asked Jan. 30.

100 tons, plant, Du Pont interests, Penns

Grove, Pa.; bids Jan. 15.

Unstated, 99 x 260 foot permanent warehouse.

McNary dam; bids to U. S. Engineer, Walla
Walla, Wash., Jan. 24.

REINFORCING BARS . . .

REINFORCING BARS PLACED

70 tons, Service Center Bldg., Rochester. Minn., to United States Steel Supply Co., Chicago.

470 tons. Philip Morris & Co., Louisville, Ky., to United States Steel Supply Co., Chicago. 200 tons, 38 family apartments, Fort Richardson, Alaska, to Northwest Steel Rolling Mills

Inc., Seattle. 90 tons, paving, LR 902, Indiana county. Pennsylvania; to Bethlehem Steel Co.

160 tons, hospital, McKeesport, Pa., to Lind Co., Pittsburgh.

135 tons, barrel house, Standard Oil Co. (In-diana), Whiting, Ind., to United States Steel Supply Co., Chicago. 130 tons, reactor engineering building, Argonne

National Laboratory, DuPage county, Illinois, to United States Steel Supply Co., Chicago; Lee Construction Co. Inc., Chi-

cago, contractor. 115 tons, School of Industrial Administration.

Carnegie Institute of Technology, Pittsburgh, to W. N. Dambach Inc., that city.

REINFORCING BARS PENDING

5000 tons, second unit Seattle viaduct; bids to Olympia, Wash., Jan. 16; postponed from

1400 tons, power plant, Illinois Public Service Co., Hutsonville, Ill.; bids in, 951 tons, state highway bridges, sections 3B and 4B, Carnegie, Pa.; Dinardo Inc., Pitts-

burgh, general contractor, low. 890 tons, Twin Towers Apartments, Chicago.

863 tons, state highway project, Banksville Circle, Pittsburgh; Dinardo Inc., Pittsburgh, general contractor, low.

33 tons, road work, LR 766, Alleghens county, Pennsylvania.

314 tons, Central Junior high school, Rock Island, Ill.; C. H. Langman & Son, Rock Island, Ill., general contractor.

235 tons, Easterly sewage treatment works Altoona-Blair counties, Pennsylvania.

200 tons. Shelby Mutual Insurance Bldg., Cleveland.

150 tons, sewage treatment plant, Orrville, O. 150 tons, Akron Express system, Akron, O. 148 tons, garage, Hall Chevrolet Co., Milwaukee.

135 tons, Albion College, Albion, Mich. 120 tons, power station boiler room, Iowa-Illinois Gas & Electric Co., Moline, Ill., Sargent & Lundy, Chicago, engineers, 117 tons, bridge, North Omaha, Neb., North Omaha Bridge Commission.

100 tons, office building, Z. Frank Inc., Chi-

cago; bids in.

100 tons, annealing furnaces, Ford Motor Co., Dearborn, Mich.

PLATES . . .

PLATES PLACED

500 tons, tanks for eastern Washington government installation to Puget Sound Sheet Metal Works, Seattle; Chicago Bridge & Iron Co., Seattle, and Willamette Iron & Steel Co., Portland, Oreg.

PLATES PENDING

Unstated, four discharge pipes Lookout Point dam, Oregon; Guy F. Atkinson Co. and Willamette Iron & Steel Co., Portland, Oreg., sole bidders (joint) \$223,480.

PIPE . . .

CAST IRON PIPE PENDING

250 tons, 8 inch cast iron pipe, for local improvement project; bids received by Seattle

RAILS, CARS . . .

LOCOMOTIVES PLACED

Central of New Jersey, 31 diesel-electric units, comprising fourteen 1600-hp general utility units and one 1000-hp road-switching unit, units and one 1000-hp road-switching unit, awarded the American Locomotive-General Electric Companies, Schenectady, N. Y.; nine 1200-hp switching units, awarded Electro-Motive Division, General Motors Corp., La Grange, Ill.; and seven 1200-hp switching units, awarded the Baldwin-Lima-Hamilton Corp., Eddystone, Pa. llinois Central, 44 diesel-electric units, to Electro-Motive Division, General Motors Corp., La Grange, Ill.; order includes four 22-50-hp passenger units; thirty-five 1200-hp, three 1500-hp and two 600-hp switchers.

LOCOMOTIVES PENDING

Northern Pacific, six 6000-hp diesel-freight locomotives and three 1500-hp diesel road switchers; early award contemplated.

RAILROAD CARS PLACED

Northern Pacific, 500 box cars and 100 covered hoppers to the company's Brainard, Minn., shops, and 250 gondolas to commercial

FERROALLOYS

(Continued from page 129)

(Continued from page 129)

81 4-6%, Mn 4-6%, G 4-6%). Add 1.1c to high-carbon ferrochrome prices.

Low-Carbon Ferrochrome: (Cr 67-72%.) Contract, carload, lump, bulk, max. 0.03% C 33.60c per lb of contained Cr, 0.04% C 31.50c, 0.66% C 30.50c, 0.10% C 30.00c, 0.15% C 29.75c, 0.20% C 29.50c, 0.50% C 29.25c, 1% C 29.00c, 1.50% C 28.85c, 2% C 28.75c.

Carbon add 3.9c. Delivered. Spot, add 0.25c.

Low-Carbon Ferrochrome, Nitrogen Bearing: Add 5c to 0.10% C low-earbon ferrochrome prices for approx. 0.75% N. add 5c for each 0.25% of N above 0.75%.

Foundry Ferrochrome, High Carbon: (Cr 62-86%, C 5-7%). Contract, c.l. 8 M x D, bulk, 23.25c per lb of contained Cr, c.l., packed 24.15c, ton 25.50c, less ton 27.36c. Delivered. Spot, add 0.25c.

Foundry Ferrochrome, Low Carbon: (Cr 50-54%, Sl 28-32%, C 1.25% max.) Contract, Carload, packed, 8 MxD, 16.10c per lb of alloy; 1 ton 16.95c; less ton lot, 18.15c, delivered; spot, add 0.25c.

Low-Carbon Ferrochrome Sillcon: (Cr 34.41% 142-49%, C 0.05% max.) Contract, carload, lump, 4" x down and 2" x down, bulk, 21.75c per lb of contained chromium plus 12.00c pound of contained silicon; 1" x down, bulk 26.55c per pound of contained chromium plus



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Hand, Foot, Cam, Pilot, Diaphragm and Solenoid Operated Mfd. by C. B. HUNT & SON, INC., 1924 East Pershing St., Salem, Ohio



11.50c per pound of contained silicon, F.o.b. plant; freight allowed to destination.

Ferrochrome Silicon, No. 2: (Cr 36-39%, Si 36-39%, Al 7-9%, C 0.05% max.) 21.75c per lb of contained silicon plus 12.0c per lb of contained silicon plus aluminum, 3" x down, delivered.

Chromium Metal; (Min. 97% Cr and 1% Fe). Contract carload, 1" x D; packed, max 0.50% C grade, \$1.08 per lb of contained chromium, ton lot \$1.10, less ton \$1.12. Delivered. Spot

Tungsten Alloys

Ferrotungsten: (70-80%). Centraet, 10,000 lb W or more, \$3.25 per lb of contained W; 2000 lb W to 10,000 lb W, \$3.35; less than 2000 lb W, \$3.47. Spot, add 2c.

Tungsten Powder: (W 98.8% min.). Contrast or spot, 1000 lb or more, \$4.15 per lb of con-tained W; less than 1000 lb W, \$4.25.

Silicon Alloys

25-30% Ferrosilicon: Contract, carload, lump, bulk, 19.00c per lb of contained 81; packed 20.40c; ton lot 21.50c, f.o.b. Niagara Falls, N. Y., freight not exceeding St. Louis rate N. Y., allowed.

50% Ferrosilicon: Contract, carload, lump, bulk, 12.40c per lb of contained 81, earload packed 14.0c, ton lot 15.45c, less ton 17.1e. Delivered. Spot, add 0.45c.

Low-Aluminum 50% Ferrosilicon: (Al 0.40% max.) Add 1.3c to 50% ferrosilicon prices.

75% Ferrosilicon: Contract, carload, lump, bulk, 14.3c per lb of contained Si, carload packed 15.6c, ton lot 16.75c, less ton 18.0a. Delivered, Spot, add 0.8c.

80-90% Ferrosilicon: Contract, carload, lump, bulk 15.55c per lb of contained Si, carload packed 16.8c, ton lot 17.8c, less ton 18.95c. Delivered. Spot, add 0.25c.

Low-Aluminum 85% Ferrosilicon: (Al 0.50% max.) Add 0.7c to 85% ferrosilicon prices.

90-85% Ferrosilicon: Contract, carload, lump, bulk, 17.5c per lb of contained SI, carload packed 18.7c, ton lot 19.65c, less ton 20.7c. Delivered. Spot, add 0.25c. carload

Low-Aluminum 90-95% Ferrosilicon: (Al 0.50% max.) Add 0.7c to 90-95% ferrosilicon prices. Silicon Metal: (Min. 97% Si and 1% max. Fe), C.l. lump, bulk, regular 20.0c per li

of Si, c.l. packed 21.2c, ton lot 22.1c, less ton 23.1c. Add 1.5c for max. 0.10% calcium grade. Deduct 0.4c for max. 2% Fe grade analyzing min. 96% Si. Spot, add 0.25c.

Alsifer: (Approx. 20% Al, 40% Sl, 40% Fe.) Contract, basis f.o.b. Niagara Fails, N. Y., lump, earload, bulk, 8.55e per lb of alloy, ten lets packed 14.05c, 200 to 1999 lb 10.40c, smaller lots 10.90c.

Briquetted Alloys

Chromium Briquets: (Weighing approx. 3% lb each and containing exactly 2 lb of Cr). Contract, carload, bulk, 14.50c per lb of briquet carload packed 15.2c, ton lot 16.0c, less ton 16.9c. Delivered. Add 0.25c for notching. Spot, add 0.25e.

Ferromanganese Briquets: (Weighing approx. 3 ib and containing exactly 2 lb of Min). Contract, earload, bulk 10.95c per lb of briquet, e.l. packaged 11.75c, ton lot 12.55c, less ton 13.45c. Delivered. Add 0.25c for notching. Spot, add 0.25c.

less ten 18-30c. Delivered. Add 0.25c len onching. Spot, add 0.25c.
Silicomanganese Briquets: (Weighing approx. 3½ lb and containing exactly 2 lb of Mn and approx. ½ lb of Si). Contract, c.l. bulk 11-15c, per lb of briquet, c.l. packed 11-95c, ton lot 12-75c, less ton 13-65c. Delivered, Add 0.25c for notching. Spot, add 0.25c.
Silicon Briquets: (Large size—weighing approx. 5 lb and containing exactly 2 lb of Si) Contract, carload, bulk 6-95c per lb of briquet, c.l. packed 7.75c, ton lot 8.55c, less ton 9.45c. Delivered. Spot, add 0.25c.
(Small size—weighing approx 2½ lb and containing exactly 1 lb of Sl). Carload, bulk 6-9c, c.l. packed 7.7c, ton lot 8.5c, less ton 9.40c. Delivered. Add 0.25c for notching, small size only. Spot, add 0.25c.
Molybdic-Oxide Briquets: (Containing 2½ lb of Mo each) \$1.14 per pound of Mo contained, f.o.b. Langeloth, Pa.

Calcium Alloys

Calcium-Manganese-Silicon: (Ca 16-20%, Mn 14-18% and Si 53-59%), Contract, carload, lump, bulk 20.0c per lb of alloy, carboad packed 21.0c, ton lot 22.3c, less ton 23.3c. Delivered. Spot add 0.25c.

Calcium-Silicon: (Ca 30-33%, Si 60-65%, Fe 1.50-3%). Contract, carload, lump, bulk 19.0c per lb of alloy, carload packed 20.2c, ton lot 22.1c, less ton 23.6c, Dalivered. Spot add



Ferrotitanium, Low-Carbon: (Tr 20-25%, Al 3.5% max., Si 4% max., G 0.10% max.). Contract, ton lots 2" x D, \$1.40 per lb e contained Tr; less ton \$1.45, (Tr 38-43%, Al 8% max., St 4% max., C 0.10% max.) Ton Lt \$1.24, less ton \$1.35, £0.0. Niagara Falla, N. Y., freight allowed to St. Louis. Spot, add 5c.

Perrotitanium, High-Carbon: (Tl 15-18%, C 6-8%). Contract \$167 per net ton, f.o.b. Ni-agara Falls, N. Y., freight allowed to destina-tions east of Mississippi river and north of Baltimore and St. Louis.

Ferrotitanium, Medium-Carbon: (Ti 17-21%, C 3-4.5%.) Contract, \$183 per ten, f.o.b. Ni-agara Falls, N. Y., freight not exceeding St. Louis rate allowed.

Vanadium Alloys

Ferrovanadium: Open-hearth Grade (Va. 35-55%, Si. 8-12% max., C. 3-3.5% max.). Contract, any quantity, \$3.00 per lb of centained Va. Delivered. Spot, add 10c. Crucible-Special Grades (Va. 35-55%, Si. 2-3.5% max., C. 0.5-1% max.), \$3.10. Primos and High Speed Grades (Va. 35-55%, Si. 1.50% max., C. 0.20% max.), \$3.20. Grades (Va max.) \$3.20.

Grainal: Vanadium Grainal No. 1, 93c per lb; No. 6 63c; No. 79, 45c, freight allowed.

Vanadium Oxide: Contract, less carload lots \$1.20 per lb contained $\nabla_{\bf g} O_{\bf g}$, freight allowed. Spot, add 5c.

Zirconium Alloys

12-15% Zirconium Alloy: (Zr 12-15%, Si 38-43%, Fe 40-45%, C 0.20% max.). Contract, c.l. lump, bulk 7.0c per lb of alloy, c.l. packed 7.75c, ton lot 8.5c, less ton 9.35c. Delivered. Spot, add 0.25c.

35-40% Zirconium Alloy: (Zr 35-40%, Si 47-52%, Fe 8-12%, C 0.50% max.). Contract carload, lump, packed 20.25c per lb of alloy ton lot 21c, less ton 22.25c. Freight allowed. Spot, add 0.25c.

Boron Alloys

Boron Alloys
Ferroboron: (B 17.50% min., SI 1.50% max.,
Al 0.50% max., C 0.50% max.). Contract,
100 lb or more, 1" x D, \$1.20 per lb of alloy. Less than 100 lb \$1.30. Delivered. Spot,
add 5c. F.o.b. Washington, Pa., prices 100
lb and over are as follows: Grade A (10.4% B) 75c per pound; Grade B (14-18% B)
\$1.20; Grade C (19% min. B) \$1.50.

Borosil: (3 to 4% B, 40 to 45% Si), \$5.25 per lb contained B, delivered to destination.

Bortam: (B 1.5-1.9%). Ton lots, 45c per lb; smaller lots, 50c per lb.

Carbortam: (B 1 to 2%) contract, lump car-leads 9.50c per lb, f.o.b. Suspension Bridge, N. Y., freight allowed same as high-carbon

Other Ferroalloys

Ferrocolumbium: (Cb 50-60%, Si 8% max.) C 0.4% max.). Contract, ton lot, 2" x D, \$4.90 p er lb of contained Cb, less ton \$4.95 Delivered. Spot, add 10c.

Ferrotantalum—Columbium: (Cb 40% approx., Ta 20% approx., and Cb and Ta 60% min., © 0.30 max.) ton lots, 2" x D, \$3.75 per lb ef contained Cb plus Ta, delivered; less ton lots

Sileaz Alloy: (Si 35-40%, Ca 9-11%, Al 6-8%, Zr 3-5%, Ti 9-11%, B 0.55-0.75%). Carload packed, 1" x D, 45c per lb of alloy, ton lef 47c, less ton 49c. Delivered.

SMZ Alloy: (Si 60-65%, Mn 5-7%, Zr 5-7%, Fe 20% approx.). Contract, carload, packed, %" x 12 M, 17.5c per lb of alloy, ton lets 18.25c, less ton 19.5c. Delivered. Spot, add

Graphidox No. 4: (Si 48-52%, Ca 5-7%, Ti 9-11%). C.l. packed, 17.0c per lb of alloy; ton lots 18.0c; less ton lots 19.50c, f.o.b. Niagara Falls, N. Y.; freight allowed to St. Louis.

V-5 Foundry Alloy: (Cr 38-42%, St 17-19%, Mn 8-11%). C.l. packed, 14.25c per lb of alloy; ten lots 15.75c; less ton lots 17.09c, f.o.b., Niagara Falls, N. Y.; freight allowed to St. Louis.

Simanal: (Approx 20% each Si, Mn, Al; bal. Fe) Lump, carload, bulk 14.50c, packed 15.50c; ton lots, packed, 15.75c; less ton lots, packed, 16.25c per lb of alloy, delivered to destination within United States.

Ferrophosphorus: (23-25% based on 24%, P content with unitage of \$3 for each 1% of P above or below the base); carloads, f.o.b. seller's works, Mt. Pleasant, or Siglo, Tenn., \$65 per gross ton.

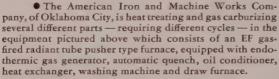
Ferromolybdenum: (55-75%). Per lb, contained Me, f.o.b. Langeloth, \$1.32; Washington, Pa., furnace, any quantity \$1.13.

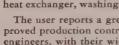
Technical Molybdic-Oxide: Per lb, contained Mo., f.o.b. Langeloth \$1.14, packed in bags containing 20 lb of melybdenum; Washington, Pa., 95.90c.





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Metalworking Briefs

CONSTRUCTION-ENTERPRISE-ORGANIZATIONAL CHANGES

AiResearch Mfg. Co., Los Angeles, will build a \$1.5 million plant in Phoenix, Ariz. To be called the AiResearch Mfg. Co. of Arizona, the plant is designed for future expansion. Completion is scheduled by June.

T. R. Miller Mill Co. is building a \$750,000 plant for the production of wire-bound boxes. Rust Engineering Co., Pittsburgh, is the designer-constructor.

Worthington Pump & Machinery Corp., Harrison, N. J., will operate the recently acquired Wintroath Pumps Inc., Alhambra, Calif., as a wholly owned subsidiary. The Wintroath organization will continue with Boyd Kern remaining as president.

S. C. Johnson & Son Inc., Racine, Wis., will build a \$200,-000 office and warehouse in Los Angeles. Completion is scheduled by March. Planned for future construction is a branch plant, that city.

Republic Heater Corp., Huntington Park, Calif., started construction of a \$1 million plant in the Los Angeles Airport Industrial Tract. The firm makes gas heaters, gas floor furnaces, circulating wall heaters, air-conditioning units and water softeners. Completion is scheduled by April.

Ferro Inc., engaged in the export and import of iron and and steel, was chartered by the secretary of state's office at Dover, Del. Corporation Service Co., Wilmington, Del., is serving as the principal office.

United Drill & Tool Corp., Chicago, contemplates the erection of a plant in Niles, Ill., to cost about \$1,750,000. It has a site of 15 acres.

International Minerals & Chemical Corp., Chicago, plans to build a \$500,000 research laboratory at Skokie,

Barber Greene Co., Aurora, Ill., awarded the contract for erection of a factory addition to Campbell-Lowrie & Lautermilch, Chicago, at \$300,000. The company makes mixers and materials handling equipment.

Clearing Industrial District, Chicago, has the general contract on a \$350,000 factory to be erected in Melrose Park, Ill., for Miller Motor Co., Chicago. John S. Cromelin, Chicago, is the architect.

American Steel Foundries, Chicago, is purchasing 95 per cent of the outstanding capital stock of Diamond Chain Co., Indianapolis, for about \$8 million. In acquiring the manufacturer of roller chains for all types of equipment, American will operate Diamond Chain as a subsidiary.

Standard Oil Co. of Indiana, Chicago, contemplates a \$2.5 million expansion program for its refinery in Neo-

Tracerlab Inc., Boston, plans to build a plant at West Concord, Mass, to house its engineering and manufacturing operations as well as certain phases of its radiochemical program. The company manufactures in assembly line quantities instruments for civilian defense against atomic attack.

Montana Sheet Metal Contractors Inc. was organized in Helena, Mont., to "aid and inform the industry." Theodore Carson, Helena, is president. Associated with him are John McNutt, Helena, and J. R. Klemens, Great Falls,

Champlain Co. Inc., Bloomfield, N. J., is the new owner of Pickering Governor Co., Portland, Conn., operated for the past year as a division of Hartford Empire Co. Mansales and service operations are being moved to the Champlain plant in Bloomfield. Pickering is a manufacturer of mechanical and hydraulic governors for steam engines and turbines, gasoline and diesel engines.

General Electric Co., Schenectady, N. Y., purchased a



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THE PENTON PUBLISHING CO. Book Department, 1213 W. 3rd St., Cleveland 13, O. najor part of Union Bag & Paper Corp.'s Hudson Falls, V. Y., plant facilities. The property will be used to inrease General Electric's facilities for manufacturing apacitors. Union Bag has concentrated its manufacuring operations at Fenimore, N. Y., and also operates plant at Savannah, Ga.

3. F. Goodrich Co., Akron, will build a \$2.5 million plant near Marion, O., for making of industrial rubber products.

Thompson Products Inc., Cleveland, automotive and airraft engine parts, plans a \$13 million expansion of ts Aircraft Division. Included in the project, scheduled to be completed by the third quarter, is \$4,930,000 for cols and equipment for which the company has been granted accelerated depreciation. In addition to the \$13 million expansion to be financed by the company, further expenditures of several million dollars will be made by the Army and Navy for facilities at the company's Tapco factory in Euclid, O., and downtown Cleveland plant.

Worthington Pump & Machinery Corp., Harrison, N. J., purchased the land, buildings and equipment of National Transit Pump & Machine Co. in Oil City, Pa. Worthington expects to take possession of the property early next month and will commence production of equipment for the national defense program at that time. Worthington has purchased some of the former owner's inventory and is in a position to furnish repair and spare parts for National Transit Pump & Machine Co. products.

Washingto

L. H. Hoffman Co., Portland, Oreg., is reported low at \$2,473,000 for schedule No. 1 and \$2,555,000 for schedule No. 2, involving five steel and concrete structures to General Electric Co., Schenectady, N. Y., as prime contractor for Atomic Energy Commission. Bids are said to be 13 per cent above estimates for the Hanford, Wash., project.

Washington

George Buckler Co., Portland, Oreg., has the contract to build a \$3 million plant in Vancouver, Wash., for Electro-Chemical Co., Buffalo. Plant will produce hydrogen peroxide.

Wiscon

Construction has started on another addition to the plant of the Louis Allis Co., Milwaukee, manufacturer of electric motors. The addition, scheduled to be completed by Mar. 1, together with research and test facilities to be nstalled, will cost about \$400,000. Klug & Smith Co., Milwaukee, is the contractor.



EVER SO GENTLY: A 420-foot steel span was floated into place by workmen of the American Bridge Co. as part of a unique construction job on the Little Calumet river on the south side of Chicago. Barges guided by cables maneuvered the span into position to be gently lowered by flooding the barges



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